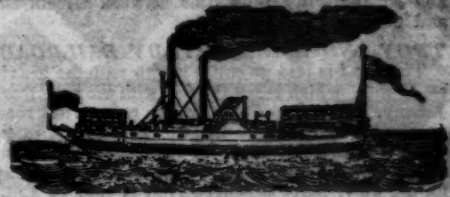
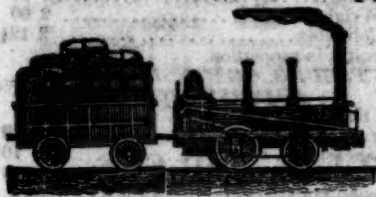


AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY

AND MINES.

ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 105 CHESTNUT STREET, PHILADELPHIA, AT FIVE DOLLARS PER ANNUM.

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SATURDAY, FEBRUARY 13, 1847.

[WHOLE No. 556, VOL. XX.]

AMERICAN RAILROAD JOURNAL.

OFFICE AT THE FRANKLIN HOUSE,
105 Chestnut Street,
PHILADELPHIA, P.A.

This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

TERMS.—Five Dollars a year, in advance.

RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

BOSTON AND PROVIDENCE RAILROAD. Passenger Notice. Summer Arrangement. On and after Monday, Sept. 28, 1846, the Passenger Trains will run as follows:

For New York—Night Line, via Stonington. Leaves Boston every day, but Sunday, at 5 p.m. Accommodation Trains, leave Boston at 7 a.m. and 3 p.m., and Providence at 8 a.m. and 3 p.m. Dedham trains, leave Boston at 9 a.m.; 3 p.m., 5 p.m., and 10 p.m. Leave Dedham at 8 a.m. and 4 p.m. and 9 p.m.

Stoughton trains, leave Boston at 11 a.m. and 4-10 p.m. Leave Stoughton at 8 a.m. and 2 p.m. All baggage at the risk of the owners thereof.
31 ly W. RAYMOND LEE, Sup't.

BRANCH RAILROAD and STAGES CONNECTING with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

BOSTON AND MAINE RAILROAD.

Upper Route, Boston to Portland via, Reading, Andover, Haverhill, Exeter, Dover, Great Falls, South & North Berwick, Wells, Kennebunk and Saco.

Winter Arrangement, 1846-7.

On and after October 5th, 1846, Passenger Trains will leave daily, (Sundays excepted,) as follows:

Boston for Portland at 7 a.m. and 2 p.m.
Boston for Great Falls at 7 a.m., 2 p.m. and 3-25 p.m.

Boston for Haverhill at 7 a.m. and 11 a.m., 2 p.m. and 5 p.m.
Boston for Reading at 7 a.m. and 11 a.m., 2 p.m. and 5 p.m.

Portland for Boston at 7 a.m., and 3 p.m.
Great Falls for Boston at 6 a.m. and 9 a.m., and 4 p.m.

Haverhill for Boston at 7 a.m., 8 a.m. and 11 a.m. and 3 and 6 p.m.
Reading for Boston at 7 a.m. and 9 a.m., 12 m., 1 p.m., 4 and 7 p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value.

1y31 CHAS. MINOT, Super't.

THE BEST RAILROAD ROUTE TO THE Lake and Buffalo, from Cincinnati.

Take Cars to Xenia, 65 miles; take Stage to Mansfield, 88 miles; thence by Cars to Sandusky, 56 miles to the Lake; thence Steamboat to Buffalo, 230 miles.

Fare from Cincinnati to Sandusky.....\$8 00
" " Sandusky to Buffalo, Cabin..... 6 00
" " " " Steerage..... 4 50

Fare by this route, although the cheapest across the state, will be reduced in a short time, railroad lengthened, and speed increased.

Leave Cincinnati in the morning, arrive at Columbus at night.

Leave Columbus in the morning, arrive at Sandusky same day.

Leave Sandusky, by Boat, in the morning, arrive at Buffalo next morning in time for the Cars north and east for Niagara Falls, Canada, Saratoga Springs, Troy, Albany, Boston, New York, Washington, or Philadelphia.

Passengers should not omit to pay their fare through from Cincinnati to Sandusky, or from Columbus to Sandusky via Mansfield; as this route is the only one that secures 56 miles [this road is run over in 2h. 50m.,] most railroad which is new, and is the shortest, cheapest and most expeditious across the state.

Fares on the New York railroads are about to be reduced.

31 ly B. HIGGINS, Sup't, etc.
Sandusky, Ohio. M. & S. C. R. R. Co.

SUMMER ARRANGEMENT—NEW YORK AND ERIE RAILROAD LINE, from April 1st until further notice, will

run daily (Sundays excepted) between the city of New York and Middletown, Goshen, and intermediate places, as follows:

FOR PASSENGERS—

Leave New York at 7 A.M. and 4 P.M.

" Middletown at 6 A.M. and 5 P.M.

FARE REDUCED TO \$1 25 to Middletown—way in proportion. Breakfast, supper and berths can be had on the steamboat.

FOR FREIGHT—

Leave New York at 5 P.M.

" Middletown at 12 M.

The names of the consignee and of the station where to be left, must be distinctly marked upon each article shipped. Freight not received after 5 P.M. in New York.

Apply to J. F. Clarkson, agent, at office corner of Duane and West sts. H. C. SEYMOUR, Sup't. March 25th, 1846.

Stages run daily from Middletown, on the arrival of the afternoon train, to Milford, Carbondale, Honesdale, Montrose, Towanda, Owego, and West; also to Monticello, Windsor, Binghamton, Ithaca, etc., etc. Agent on board. 13 if

NORWICH AND WORCESTER RAILROAD.

Road. Summer Arrangement, commencing Monday, April 6, 1846.

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 p.m. Leave Worcester, at 10 a.m., and 4 p.m.

The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 1 p.m. train from Boston.

New York Train via Long Island Railroad: Leave Allyn's Point for Boston, about 1 p.m., daily, except Sunday.

Leave Worcester for New York, about 10 a.m., stopping at Webster, Danielsonville, and Norwich.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the steamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 4 p.m., daily, except Sunday, stopping at Webster, Danielsonville and Norwich.

Freight Trains daily each way, except Sunday. Special contracts will be made for cargoes, or large quantities of freight, on application to the superintendent.

Fares are Less when paid for Tickets than when paid in the Cars. 32 ly J. W. STOWELL, Sup't.

TROY RAILROADS.—IMPORTANT NOTICES.

Troy and Greenbush Railroad, forming a continuous track from Boston to Buffalo and Saratoga Springs. This road is new, and laid with the heaviest iron H rail. Trains will always be run on this road connecting at Greenbush each way with the trains to and from Boston and intermediate places, leaving Greenbush daily at 1 1/2 p.m. and 6 p.m., or on arrival of the trains from Boston; leave Troy at 7 1/2 a.m. and 4 1/2 p.m., or to connect with trains to Boston. Trains also run hourly on this road between Troy and Albany. Running time between Greenbush and Troy, 15 minutes.

TROY AND SCHENECTADY RAILROAD. This road is laid its entire length with the heaviest H rail, which is not the fact with the road from Albany. Trains will always be run on this road connecting each way, to and from Buffalo and intermediate places. Leave Troy for Buffalo at 7 1/2 a.m. and 1 p.m. and 6 1/2 p.m., or to connect with the trains for the west; leave Schenectady at 2 1/2 a.m., 8 1/2 a.m., 1 p.m. and 3 1/2 p.m., or on arrival of the trains from Buffalo and intermediate places.

TROY AND SARATOGA RAILROAD.

THE ONLY DIRECT ROUTE. No change of passenger, baggage or other cars on this route. Cars leave Troy for Ballston, Saratoga Springs, Lake George and White Hall at 7 1/2 a.m., (arriving one hour in advance of the train from Albany), and at 3 1/2 p.m. Returning, leave Saratoga at 9 a.m. and 3 1/2 p.m., (reaching Troy in time for the evening boats to New York.) Cars also leave Troy for the Burrough at 3 1/2 p.m. and 7 p.m., connecting with packet boats for the north. This takes passengers from New York and Boston to Montreal in 44 hours.

N.B. Travellers will find the routes through Troy most convenient and economical, and as expeditious as any other. The steamboats to and from New York land within a few steps of the railroad office, and passengers are taken up and landed by the different railroad lines at the doors of principal hotels, thus saving all necessity for, and annoyance from, hack drivers, cabmen, runners, etc.

Aug 3, 1846.

1y 32

BALTIMORE AND OHIO RAILROAD.

MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7 1/2 and 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. 1y31

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

PETER COOPER 17 Burling Slip.

1y10

New York.

NEW RAILROAD ROUTE FROM BUFFALO TO CINCINNATI.

Passengers destined for Columbus and Cincinnati, O., Louisville, Ky., St. Louis, Mo., Memphis, Tenn., Vicksburg, Natchez, New Orleans, and all intermediate ports, will find a new, and the most expeditious and comfortable Route, by taking Steamboats at Buffalo, landing at Sandusky City, Ohio, distance 230 miles.

From thence by Cars, over the Mansfield Railroad which is new and just opened [laid with heavy iron,] to Mansfield, distance 56 " Thence by Stage via Columbus to Xenia over gravel and Macadamized Road, (the best in the state,) in new coaches, distance 88 " Thence, over the Little Miami Railroad, from Xenia to Cincinnati, distance 65 "

TIME.

From Buffalo to Sandusky 24 hours. Leave Sandusky 5 a.m. to Columbus 14 " From Columbus to Cincinnati 15 "

Or say 30 hours from Sandusky to Cincinnati over this route, including delays.

FARE.

From Buffalo to Sandusky, Cabin \$6 00 " " " Steerage 3 00 " Sandusky to Columbus 4 50 " " through to Cincinnati 8 00

Passengers should not omit to pay their fare through from Sandusky City to Cincinnati and take receipts availing themselves of the benefit of a contract existing between the said Railroad and Stage Co's, securing 121 miles travel by good Railroad and 88 miles by Stage, in crossing from Lake Erie to the Ohio river, in the space of 30 hours.

Passengers destined for St. Louis, or any point below on the Mississippi, will save by taking this route, from 4 to 6 days time and travel, and nearly half the expense, over the Chicago and Peoria route to the above places.

Fare by this route, although the cheapest, will in a short time be reduced, Railroad lengthened, and speed increased.

B. HIGGINSON, Sup't, etc.

M. & S. C. R. R. Co.

Sandusky City, Ohio.

NEW YORK & HARLEM RAILROAD.

CO.—Winter Arrangement. On and after Monday, November 23, 1846, the cars will run as follows:

Leave 27th street for 42d street, Deaf and Dumb Institute, Yorkville, Harlem Morrisania, and Williams' Bridge, at 7 o'clock a.m. From City Hall for above named places, 2 p.m. [freight train,] 2 30 p.m. 5 p.m. to Morrisania only. Leave City Hall for Harlem, Morrisania, Fordham and Williams' Bridge, at 7 45 a.m., and 10 45 a.m.; 1 15 p.m., 2 p.m. [freight train,] 2 30 p.m. and 3 45 p.m. Leave City Hall for Hunt's Bridge, Bronx, Tuckahoe, Hart's Corners White Plains, Davis' Brook, Unionville and Pleasantville, [Pleasantville 4 miles from Sing Sing,] 7 45 and 10 45 a.m.; 1 15 p.m., 2 p.m. [freight train,] and 3 45 p.m.

RETURNING.

Leave Pleasantville, at 8, 10, [freight train,] and 11 a.m.; 1 30, and 4 p.m. Leave White Plains, at 8 12, 10 30, [freight train] and 11 20 a.m.; 1 50, and 4 20 p.m. Leave Tuckahoe, 8 35, 10 55, [freight train,] and 11 35 a.m.; 2 05, and 4 35 p.m. Leave Williams' Bridge at 7 45, 8 50 and 11 50 a.m.; 2 10, 4, and 4 50 p.m. Leave Morrisania 8 and 9 05 a.m.; 12 05, 2 35, 4 20, 5 05 and 6 p.m. Leave Yorkville, at 8 12 a.m.; 4 35 and 6 15 p.m.

SUNDAY ARRANGEMENTS.

Leave City Hall for Pleasantville and intermediate places, at 7 45 a.m.; 1 15 and 3 p.m. Leave Pleasantville for City Hall, at 8 a.m.; 11, and 3 15 p.m. Leave City Hall for Williams' Bridge and intermediate places, 10 45 a.m.; 2 30 p.m. Leave Williams' Bridge for City Hall, at 8 50 and 11 50 a.m.; 1, 3 45 and 4 05 p.m. 1y49

BALTIMORE AND SUSQUEHANNA RAILROAD.—Reduction of Fare.

Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows: Leaves Baltimore at 9 a.m. and 3 1/2 p.m. Arrives at 9 a.m. and 6 1/2 p.m. Leaves York at 5 a.m. and 3 p.m. Arrives at 12 1/2 p.m. and 8 p.m. Leaves York for Columbia at 1 1/2 p.m. and 8 a.m. Leaves Columbia for York at 8 a.m. and 2 p.m.

FARE.

Fare to York \$1 50 " Wrightsville 2 00 " Columbia 2 12 1/2

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg \$9 Or via Lancaster by railroad 10 Through tickets to Harrisburg or Gettysburg 3 In connection with the afternoon train at 3 1/2 o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at 5 1/2 p.m. Returning, leaves Owing's Mills at 7 a.m.

D. C. H. BORDLEY, Sup't.

Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD.

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 26 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above.

351y

SOUTH CAROLINA RAILROAD.—A

Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tusculumbia Railroad in N. Alabama. Fare through from Charleston to Montgomery daily \$26 50

Fare through from Charleston to Huntsville, Decatur and Tusculumbia 29 00

The South Carolina Railroad Co. engage to receive merchandise consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad. 1y25 JOHN KING, Jr, Agent.

CENTRAL RAILROAD-FROM SAVANNAH TO MACON.

Distance 190 miles. This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally 50 cts. per hundred. On measurement goods 13 cts. per cubic ft. On brls. wet (except molasses and oil) \$1 50 per barrel. On brls. dry (except lime) 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery 40 cts. per hundred. On hdds. and pipes of liquor, not over 120 gallons \$5 00 per hhd. On molasses and oil \$6 00 per hhd. Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, y40 Gen'l. Sup't. Transportation.

MANUFACTURE OF PATENT WIRE

Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by JOHN A. ROEBLING, Civil Engineer, Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition. 2y19y

CENTRAL AND MACON AND WESTERN Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

Savannah to Macon—Central Railroad 190
Macon to Atlanta—Macon and Western 101
Atlanta to Oothcaloga—Western and Atlantic.. 80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings..... \$0 50 To Atlanta \$0 75 To Oothcaloga.

Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones..... 0 50 0 62½

On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot..... 0 20 0 26

Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot..... 0 20 pr. 100 lbs. 35

Crockery, per cubic foot..... 0 15 " " 35

Molasses and Oil, per hhd., (smaller casks in proportion). 9 00 12 50

Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each..... 1 25 1 50

Ploughs, (small,) and Wheelbarrows..... 0 80 1 05

Salt, per Liverpool Sack..... 0 70 0 95

Passage—Savannah to Atlanta, \$10; Children, under 12 years of age, half price, Savannah to Macon, \$7.

Goods consigned to the subscriber will be forwarded free of Commissions.

Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, Forwarding Agent, C. R. R. Savannah, Aug. 15th, 1846. 1y34

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in eleven, Petersburg in thirteen and a half hours, and Charleston, S. C., in two days from Baltimore.

Fare from Baltimore to Charleston.....\$21 00
" " " Richmond..... 6 60

For Tickets, or further information, apply at the Southern Ticket Office, adjoining the Washington Railroad Office, Pratt street, Baltimore, to 1v14 STOKTON & FALLS, Agents.

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.
Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street, Philadelphia, Pa. 1y25

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHCALOGA, 80 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 388 miles in length, from Charleston to Oothcaloga on the Oostenaula River, in Cass Co., Georgia.

RATES OF FREIGHT.

	Between Augusta and Oothcaloga, 250 miles.	Between Charleston and Oothcaloga, 388 miles.
1st class. Boxes of Hats, Bonnets, and Furniture, per cubic foot.....	\$0 16	\$0 25
2d class. Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	0 90	1 40
3d class. Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Bar and Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 55	0 75
4th class. Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Feathers, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 37½	0 62½
Cotton, per 100 lbs.....	0 45	0 65
Molasses, per hogshead.....	8 50	13 50
" " barrel.....	2 00	3 25
Salt per bushel.....	0 17	95
Salt per Liverpool sack.....		
Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows...	0 75	1 37

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothcaloga.

J. EDGAR THOMSON,
Ch. Eng. and Gen. Agent.
Augusta, Sept. 2d, 1846. *44 1y

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntville, Decatur and Tusculumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846. 1y1

TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
a45 E. cor. 12th and Market sts., Philad., Pa. 1y

LITTLE MIAMI RAILROAD.—OPEN TO SPRINGFIELD—Distance 84 miles—

connecting at Xenia and Springfield with Messrs. Neil, Moore, & Co's. daily daylight lines of stages going east and north, to Columbus, Zanesville, Wheeling, Cleveland, and Sandusky City, via Urbana, Bellefontaine, Kenton, and the Mad river and lake Erie railroad, or Columbus, Delaware, and the Mansfield and Sandusky City railroad—forming, by these connections, the cheapest and most expeditious route to Buffalo, Niagara Falls, Rochester, Albany, New York, and Boston.

On and after Thursday, August 13, 1846, until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Old Town, Yellow Springs, and Springfield.

Returning, will leave Springfield at 4 hours 35 minutes A. M. A line of Hackers runs in connection with the Cars, between Deerfield and Lebanon.

FARE—From Cincinnati to Lebanon....\$1 00
" " " Xenia..... 1 50
" " " Springfield.. 2 00
" " " Columbus... 4 00
" " " Sandusky city 8 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company, on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every \$500 in value over that amount.

The 1½ P. M. train from Cincinnati, and the 2 40 P. M. train from Xenia, will be discontinued on and after Monday, the 10th instant.

A freight train will run daily.

W. H. CLEMENT, Sup't.

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1847.

Winter Arrangement.

Philadelphia for Baltimore...8 a.m. and 4 p.m.
Baltimore for Philadelphia...9 a.m. and 8 p.m.

Connecting in Baltimore with Mail Lines south and west, as per notice of the Baltimore and Ohio Railroad—and with Mail Lines north from Philadelphia, both morning and afternoon.

Sundays, the Morning Lines do not run in either direction.

Accommodation train from Wilmington to Philadelphia, leaves Wilmington at 8 a.m., and returns at 2 p.m.

J. R. TRIMBLE,
21f Engineer and General Superintendent.

LAWRENCE'S ROSENDALE HYDRAULIC Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight paper-barrels, by JOHN W. LAWRENCE,

142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

SPRING STEEL FOR LOCOMOTIVES.

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,
Albany Iron and Nail Works,

Reading Railroad Report for 1846.
Continued from page 93

General Account of the Philadelphia and Reading Railroad Company, for the Year Ending November 30th, 1846.

To railroad.....	8,912,991 09	By stock shares, 62,400, at \$50.....			\$3,120,000 00
To locomotive engines and cars.....	2,091,279 16	6 per cent. Loan of 1842, inconvertible, payable 1847.....		343,200 00	
To real estate.....	321,846 05	" " 1839-40, convertible, " 1850.....		2,170,500 00	
To depots.....	205,324 87	" " 1839, convertible, £100,000, payable 1850.....		523,200 00	
To materials for transportation department for value on hand.....	46,257 16	" " 1843, mortgage, conver., £210,000 payable 1860.....	1,008,000 00		
To materials for roadway department for value on hand.....	11,998 34	" " 1843, dollar bonds, payable 1860.....	480,000 00		
		" " 1844, mortgage and convertible, payable 1860..		1,488,000 00	
		5 per cent. " 1836, do. do., £196,000, do. 1860..		1,399,000 00	
		6 per cent. " 1845, mortgage and convertible, payable 1848..		940,500 00	
		" " 1845, mortgage and convertible, payable 1849 ..		75,000 00	
		By bonds and mortgages on real estate.....		75,000 00	7,014,700 00
		By Sundry Accounts—due to sundry persons.....	194,570 97		129,300 00
		By Sundry Dumpages.—Due to sundry persons.....	11,500 84		
		By Notes Payable.—Due for coal cars to sundry persons, \$149,197 43			
		All other obligations of notes payable.....	942,817 81	1,092,015 24	
		Deduct Debts due the Company, viz:		1,298,087 05	
		Transportation accounts due by sundry persons for freight, tolls, etc.	103,600 62		
		Sundry accounts, including balance due on subscription of stock and loan authorized at the last annual meeting.....	227,018 50		
		By cash on hand.....	44,398 91	375,018 03	
		By profit and loss.....			923,069 03
		Balance subject to a dividend fund.....			402,627 65
	\$11,589,696 67				11,589,696 67

Transportation Account.

To Expense of Transportation, viz:		By Business of the Road from the following sources:			
Running account, per statement B.....	391,086 53	Freight and tolls on coal.....	1,600,667 09		
Workshop, do. do.	200,359 81	Passenger travel.....	141,749 07		
Depot, do. do.	37,206 37	Freight on merchandize.....	137,583 52		
Superintendence, do.	17,128 85	Transportation U. S. mail, and other sources.....	9,713 84		
Office, do. do.	3,453 35				1,889,713 52
Lateral railroad, do.	2,641 38	Rent of wharves at Richmond, (less repairs).....			10,401 83
	651,876 29				
Deduct value of materials on hand belonging to this account.....	31,194 15				
	620,682 14				
To Dumpage.—For amount paid for coal dumped at Richmond.....	69,359 51				
To Roadway.—For amount paid for repairs of road	136,123 93				
For watchmen at bridges and depots.....	10,078 33				
	146,202 30				
Less increased value of materials.....	3,234 76				
	142,967 54				
To contingent expenses, office in Philadelphia.					
For amount paid for salaries, attorneys' fees, stationery, printing, etc.....	21,226 11				
To Freight on Missing Coal.—For amount paid for this account.....	8,084 84				
To Profit and Loss.—For balance of this account..	1,037,795 21				
	\$1,900,115 35				
		S. BRADFORD, Treasurer.			
		Philadelphia, December 1, 1846.			\$1,900,115 35

Table Showing the Business. (Each Item Monthly.)

	Dec., 1845	Jan., 1846.	Feb.	March.	April.	May.	June.	July.	August.	September.	October.	November.	Totals.
Travel.....	8,645 63	6,976 54	6,047 32	8,999 24	13,340 42	13,455 87	13,541 14	14,982 72	15,431 35	15,384 47	13,857 01	11,095 36	\$1,417,497 07
Freight on goods..	10,276 26	9,273 92	9,093 70	12,077 83	15,764 90	14,024 00	12,546 98	10,818 24	10,088 48	10,948 54	12,300 75	10,369 92	137,583 52
Freight on coal...	45,467 48	52,720 82	49,101 91	74,864 71	125,417 05	115,763 95	184,312 78	214,802 28	198,029 71	181,719 92	198,378 67	160,087 61	1,600,667 09
Transp. U. S. mail	783 31	783 34	783 33	783 33	783 34	783 33	783 33	783 33	783 33	783 33	783 33	783 33	9,400 00
Miscella. receipts.	06			3 50	3 00	8 50	9 50	15 50	13 00	117,73	78 00	65 05	313 84
Monthly totals....	65,172 77	69,754 62	65,026 26	96,720 61	155,308 71	144,035 65	211,193 73	241,402 08	224,345 87	208,953 99	225,397 96	182,401 27	1,889,713 52
Coal transported..	39,280	50,167	45,899	60,180	100,018	93,121	136,539	150,090	137,203	126,347	137,305	112,104	1,188,258

REPORT OF ENGINEER AND SUPERINTENDENT.

John Tucker, Esq., President of the Philadelphia and Reading Railroad Company.

SIR:—The following report of the Transportation, Roadway, and Construction Departments, for the year ending November 30, 1846, is respectfully submitted.

Transportation Department.—The business of the road, including coal and merchandise tonnage, passengers, and receipts from these sources, is contained in statement A.—The receipts from coal have increased 80 per cent.; from merchandize 127; and from passengers 37 per cent. over the same items last year.

The gross and net expenses of this department are comprised in statements B and C; the former containing the total expenditures for wages and all materials; and the latter the apportionment of these expenses to the various branches of business for which they were contracted.

The running machinery will be found in statement D. Since the date of my last report, 19 locomotive engines, all of the first class, including two of great power and efficiency, for the Falls Grade, have been purchased by the company; 4 second class engines, hitherto light and inefficient machines, have been rebuilt in the company's workshops

at Reading, and now work with power and efficiency increased over 100 per cent.

The car force of the road has also been largely increased. During the past year have been added 1522 iron coal cars, 76 freight cars, for merchandize and use of road, 1 baggage and 1 new ladies car, 3 second class passenger cars altered to double their former capacities, and 33 eight wheeled coal engine wood tenders.

Five hundred and forty-eight wooden coal cars, originally 3 1-5 tons capacity, have been enlarged to carry 4 65 tons, as alluded to in my last report.

Every locomotive engine owned by the

company, with its maker, present condition, etc., is recorded in statement E, and their cost of repairs and working, in statement F. The repairs of coal, merchandise, and passenger cars, are exhibited in statement G, with the items of wages, materials, etc. The cost of hauling coal for the past year is shown in detail in statement H. It has amounted to 33 39 cents per ton. The chief causes of this increased cost of 18 cents per ton over last year, are, the great decrease of coal tonnage from the cessation of business of some of the lateral railroads, in consequence of the freshet in May; and the great falling off in demand for coal in August and September, thus diminishing our business, while the causes were too temporary to justify a discharge of men.

Other causes contributed to the same result: the increased cost of wood—the irregularity in the coal business, by a larger proportion of coal being consigned to the city of Philadelphia, causing engines and their crews to lay over more frequently for want of trains; and the increased cost of repairing engines at night, and over hours, rendered necessary from the failure of delivery of 4 first class engines, contracted for last winter, to be received by June 1st of this year. The cost of transporting passengers and merchandize is contained in detail, in statements K and L. Statement M shows the items of cost of transportation over the State railroad for the past year.

A table of the supply of coal from the various sources in Schuylkill county, with the points on the Reading road to which such coal was consigned, will be found in statement N.

The necessity for adopting and using almost exclusively, anthracite coal for fuel, has engaged, for several years past, the most serious attention of the undersigned. Numerous experiments have been made to burn this staple of the road in its locomotive engines but hitherto without that success which would warrant its adoption in engines of the present build. An engine and boiler for this purpose, invented by the undersigned, on principles entirely new, are now building in the Reading workshops, and with every prospect of success in accomplishing the above result.

Roadway Department.—Comprising repairs and renewals of track, bridges, depots, water stations, etc., for the year ending November 30, 1846.

Total cost of repairs and renewal of superstructure of bridges and road bed for the year.

Wages of all laborers, including foremen	\$60,890 11
Wages of mechanics	15,936 45
Iron, steel, tools, etc.	4,837 50
Timber for renewals and repairs	19,319 49
Clearing snow	887 62
Masonry	4,327 27
Watchmen in tunnels	784 56
Sundries, oil, rents, etc.	3,527 26
	\$110,510 26

To which must be added, what would have been the cost of repairing and strengthening of

wooden structures, replaced during the year with stone and iron bridges, 4,460 50

Actual cost of repairs of track and bridges \$114,970 76

Engines, Cars, and Stationary Machinery, Transporting, Sawing, and preparing Materials, etc.

Engines, cost of wages, repairs, fuel, etc. \$7,431 20

Cars, repairs, oil, tallow, etc. 1,204 52

Sawmill, repairs, fuel, attendance etc. 1,006 14

Stationary engines, and other machinery, materials and work, 1,601 00

\$11,242 86

Water Stations, Depots and Engine Houses, Cost of keeping in order.

Timber, iron, painting, etc. 134 11

Workmanship, masonry, roofing and materials, 890 14

Sundries, 167 49

Total, \$1,191 74

Superintendence and Office Rent.

Salaries of all officers and agents 3,028 67

Stationery, printing, etc. 247 44

\$3,276 11

Railroad Iron.—This item of expense has been in exact proportion to its original quality of make. The total number of bars removed and replaced during the year, has been 1506; of which 1249 were of the 60 lbs. rail, and 257 of the lighter rails, varying from 45 to 55 lbs. per yard—equal to 235 tons. Of these, 185½ tons were relaid in tracks at Reading and other depots and sidings, leaving 49½ tons of iron unfit for main tracks or sidings, worth \$35 per ton as old iron. But the actual cost of these 1506 bars replaced, may be thus stated:—

First* cost of 235 tons of iron replaced at \$70, \$16,450 00

Cr.

By 185½ tons of above, relaid and used, valued at \$50, 9,275 00

By 49½ tons valued at \$50, worth as old iron \$35 1,732 50

Deduct 11,007 50

Loss on above 1506 bars, \$5,442 50

Equal to four-tenths of a cent per ton on the tonnage of the road for the year; which entirely confirms our predictions and anticipations on this subject.

Watchmen at Bridges and Depots.

Wages of all watchmen at bridges 9,529 01

Wages of watchmen at Pottstown depots and yard 549 32

\$10,078 33

* This iron was purchased some years since, at less than \$60 per ton.

Recapitulation of Roadway Expenses

Maintenance of way, track and bridges, 114,970 76

Engines, cars, and machinery, 11,242 86

Water stations, depots and engine houses, 1,191 74

Watchmen at bridges and depots 10,078 33

Railroad iron, 5,442 50

Superintendence and office rent 3,276 11

\$146,202 30

Deduct value of materials on hand, viz:

On hand Nov. 30, '46, 17,367 86

On hand Dec. 1, '45, 14,133 10—3,234 76

Total cost of roadway department for the year, 142,967 54

In concluding the report of the Railway Department, I would state, that the road and bridges are at present in excellent order, after passing a tonnage amounting to 1,507,291 tons.

Construction Department.—Comprising all expenditures for new work, as stated and explained below.

Track.—Including cost of grading, superstructure, and laying down of main and turnout track, at the following points:

At Mount Carbon, for coal cars and workshops, 722

Schuylkill Haven, for coal cars and workshops, 1,122

Orwigsburg, for coal and wood cars, 450

Port Clinton, do do 769

Hamburg for coal and freight, 813

Mohrsville, for coal cars, 2,060

Between Mohrsville and Reading, for coal, lime and ore, 1,054

At Reading, for coal and freight cars, coal shutes, wood train, and shops, 8,073

Baumstown, for coal shutes, 500

Pottstown, for coal and merchandize business, shops, and timber tracks, 2,554

Norristown, for coal cars, 2,142

Conshehocken, for connection with Norristown Railroad, etc., 3,445

Between Falls and Plane, part of double track, 6,300

At Richmond, on North and Spur wharves, 9,942

New Engine House and workshops, 3,847

At other points, 2,645

Total, 46,437

Or 8.79 miles.

Total cost, including iron (except the rails) sills, labor, grading Pottstown yard, making 102,469 cubic yards embankment at Richmond North wharves, and all materials for above new tracks, coal shutes, switches, etc., \$82,172 18.

Richmond Wharves.—The northern tier of wharves, hitherto supplied with coal cars by horses, from the siding where left by the engine, at a great cost and delay, have been made to correspond with the new southern wharves. Long and convenient double tracks, of a total length of 8,570 feet, for this purpose, lead upon each wharf, which are worked altogether by locomotives, thus at

taining the greatest economy and dispatch, when compared with the old method by horses.

A new Spur Wharf, 686 feet long, has been added on wharf No. 14; and new scales, shutes, planking, etc., with all the requisite fixtures, have been laid down on several of the other wharves. Total cost of all above work, \$32,756 19.

Bridges.—Under this head are included building stone arches, wing walls, and parapets, under the following bridges; originally of wood: Irish Creek, \$4,890 53; Big Dam, \$10,704 75; Shaeffer's, \$5,535 35; Pottstown Bridge, including nine stone arches and long side walls, \$42,676 04; Phoenixville, \$2,255 43; and Manayunk, \$6,314 60. Of these, five bridges are now nearly completed; and, when entirely so, will be rendered permanently secure, and relieved of all future charges for watchmen and repairs.

Heavy arch pieces have been added to the Falls Bridge, which is now in excellent order.

Total cost, including filling in of earth, \$59,789 25.

Engine Houses, Depots, Workshops, Water Stations, Reservoirs, and Buildings generally.—The business of the past season, increasing far beyond the facilities hitherto afforded, under these heads, rendered immediate and extensive additions essentially necessary.

Serious interruptions to the working of the road, involving delays to the coal trade, had been experienced during the past year. Engines have been frozen up and subjected to heavy repairs in consequence of exposure to the weather, for want of engine houses and workshops: great expenses have been incurred at the Reading and other depots, by the employment of a large force of hands, required to change locomotives, freight, wood, and passenger cars on the turnout tracks, between the main tracks and the workshops and freight houses.

The business of the road, and the passage of trains, had been stopped for want of water at one of the principal stations on the line, (since supplied with a stationary steam engine,) and, in some instances, loads of freight have been refused, for some days, at the old Reading freight house, previous to the erection of the present commodious merchandize depot.

The road is now relieved of such delays, and most of their contingent expenses.

One large engine house, capable of holding at the same time, 20 first class engines and tenders, and most conveniently arranged for entering and leaving, watering, etc., has just been completed; as also buildings for the same purpose, of less capacity, but proportioned to the wants of the stations, at Mount Carbon, Pottstown and the Falls. At Reading, where the main workshops of the Company have been located, the following important and efficient improvements have been constructed during the year: A merchandize depot, 124 feet by 84 feet, standing 350 feet from the main track, furnished with doors allowing 11 wagons to be loading and unloading at the same time; and approached

from either end of the line by two tracks forming a Y.

A shop for repairs of iron coal cars and boiler iron work, 104 by 82 feet.

An addition to the main machine shop, 190 feet by 67 feet. A reservoir, holding 700,000 gals. water, supplied by a steam engine, for the use of the workshops and passing trains. A time-keeper's office, water and wood stations, &c.

The stations at Port Clinton, Mohrsville, Douglassville and Pottstown, have been furnished with an ample supply of water, by stationary engines, worked at trifling expense from the refuse fuel of the stations; at which points large and convenient wood sheds and cisterns have been also erected.

Efficient workshops, connected with the engine house, 221 feet by 63 feet, have been built at Richmond, for repairing and refitting engines and cars at that terminus of the road; and at Pottstown, where the work of the Road Department is chiefly done, spacious shops have been built, one 151 by 81 feet.

The road will therefore commence the business of the coming year, with facilities for every branch of its operations of the most ample character, requiring a trifling, if any, future expenditures.

Total cost, \$123,727 24.

Transportation of Materials.—Including wages of men, fuel, oil, water, repairs of engines and cars, and all expenses of transporting materials for Construction Department along the line, such as stone, timber, brick, iron, etc., etc. Total cost, \$15,840 36.

Vertical Walling.—Expenses of completing Valley Forge walls, and rebuilding walls at Falls, rendered necessary by use of double track, \$8,081 42.

Iron Bridges.—Including construction of 6 bridges, built with the "Howe" iron truss, in all 220 lineal feet; and 3 bridges now making, of 187 lineal ft. Am't. \$15,439 47.

Tunnel Arching.—Of Pulpit Rock Tunnel, at Port Clinton, roofing 180 feet. Cost, \$6,700 44.

Machinery, Turning Platforms, and Hardware.—Including new lathes, boring mills, drill presses, tilt-hammers, vices, and tools of all descriptions, for shops at Schuylkill Haven, Reading, Pottstown, and Richmond. Files, wrenches, anvils, leads and paints, etc., etc., in amount \$38,538 78.

Lumber.—For yard and depot, fencing, sills and frames, wood sheds, etc., etc., amounting to \$13,041 67.

Sundries.—Switch watchmen, during construction of stone bridges, stationery, and all items not included in above heads, \$4,862 95.

The limits of this Report prevent a more detailed explanation of the various heads of expenditure of the three departments. Should any further information be required, it can be readily furnished from office notes carefully recorded.

I am, most respectfully,

Your obedient servant,

G. A. NICOLLS,

Engineer and General Superintendent
Philadelphia and Reading Railroad.

READING, Pa., December 1, 1846.

Recapitulation of Expenditures of Construction Department for the year.

Track,	\$82,172 18
Richmond wharves,	32,756 19
Bridges,	89,789 25
Engine houses, depots, workshops, and water stations,	123,727 24
Transportation of materials,	15,840 36
Vertical walling,	8,081 42
Iron Bridges,	15,439 47
Tunnel making,	6,700 44
Machinery, including turning platforms, etc.	38,538 78
Lumber,	13,041 67
Sundries,	4,862 95
Engineering Dep., salaries, office expenses, stationery, etc.	8,163 87

Total, \$439,113 82

Statement A—Business of the Philadelphia and Reading Railroad, for the year ending Nov. 30, 1846.

TONNAGE.

Coal transported, tons of 2240 lbs.	1,188,258
Merchandise transported, tons 200 lbs.	74,971
Materials for use of Road, including earth, gravel, timber, rails, sills, cord wood, stone, brick, iron, etc., etc., in tons of 2000 lbs.	101,471
Total tonnage of Road for the year, including weight of passengers, in tons of 2000 lbs.	1,515,473
Total amount of Coal transported to date, tons of 2240 lbs.	2,693,975
Total tonnage of road to date, tons of 2000 lbs.	3,703,521

PASSENGER TRAVEL.

Total number of passengers during the year	88,641
Total number of miles travelled by the same	4,154,214
Equal to, in through passengers, over whole length of Road	45,155
Total number of passengers transported, to date	551,953

RECEIPTS OF ROAD.

From freight on Coal	\$1,600,667 09
" " Merchandise	137,543 52
" " Passenger travel	141,749 07
" " Transportation of U. S. Mail, and other sources	9,713 84
Total receipts	\$1,889,713 52

Statement B.—Gross Expense of Transportation Department, for the year ending, Nov. 30, 1846.

RUNNING ACCOUNT.

Wages of engineers, firemen, conductors, brakemen, dispatchers, time-keepers, oilers and turning screws	\$105,628 27
Wood, 60,006½ cords	166,643 12
Loading and unloading wood, wharfage, agents, &c.	13,044 35
Cutting wood	22,374 82
Oil, 45,672½ gallons	38,819 26
Tallow and grease, 40,162 lbs.	2,990 44
Hauling across Schuylkill Bridge on State Road, and expenses on ditto, in Philadelphia	1,794 33
Tolls paid State Road	28,643 50
Coal left short of consignment and used by Company	1,178 07
Renewals of articles on trains, lamps, ropes, etc.	5,459 78
Cotton waste	1,877 75
Coal fuel for engines	1,136 16
Sundry goods lost or stolen, etc.	1,496 68
Total	\$391,086 53

EXTRAORDINARY EXPENSES.

Salaries of 3 agents on lateral railroads, apportioning and distributing Coal cars	\$2,641 38
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WORKSHOP ACCOUNT.

Wages of all machanists, blacksmiths, carpenters, boiler-makers, moulders, time-keepers, and all mechanics and laborers.....	\$190,230 32
Bar iron, steel, tools, and hardware....	31,679 56
Tires and axles.....	14,325 07
Pig metal, iron, lumber, hay, etc., for foundry.....	10,030 92
Copper, spelter, tin, lead, etc.....	5,306 14
Timber and lumber.....	7,607 08
Anthracite Coal.....	1,915 52
Bituminous Coal.....	4,010 80
Work done elsewhere.....	1,201 03
Other materials, charcoal, leather, etc.	3,919 80
Sundries.....	233 57
	\$300,359 81

DEPOT ACCOUNT.

Wages of hands.....	\$27,928 45
" watchmen at depots, wharves and switches.....	5,457 93
Coal for water stations and pumping water.....	1,145 15
Materials and work.....	1,924 28
Sundries.....	750 56
	\$37,206 37

SUPERINTENDENCE ACCOUNT.

Salaries of all officers, clerks, and agents, in department.....	\$17,128 85
--	-------------

OFFICE ACCOUNT.

Advertising in, and subscription to, papers.....	179 35
Stationery and printing.....	2,274 57
Furniture, rent, and all materials.....	769 74
Sundries.....	229 69
	\$3,453 35

Gross expenses of Department.....\$651,876 29

Statement C.—Net Expenses of Transportation, for the year ending, November 30, 1846.

Transportation of 1,188,258 tons of coal from coal region to Richmond, junction with State road, and other points, at 38-89 cents per ton.....\$462,113 54

Expenses of transportation between junction with State road, and Company's Depot in Philadelphia, including tolls paid State and City, hauling across the Schuylkill Bridge, pay of agents, etc.....39,544 86

Transportation of 74,971 tons merchandise, between Pottsville, Reading, and other points, and junction with State Road, at 75-6 cents per ton.....56,678 08

Transportation of 45,155 through passengers, between Pottsville and junction with State road, at 44-4 cents per passenger.....20,048 82

Superintendence, including salaries of all officers, clerks, and coal agents at depots.....17,617 63

Expenses of delivering coal and freight, and hauling cars for all purposes, at Reading and other turnouts and stations, owing to an increase of business beyond the facilities at first provided.....6,516 98

Wages of watchmen at wharves, depots and switches.....5,798 96

Office expenses, stationery, newspaper advertising, etc.....4,671 40

Work and materials for depots and stations.....1,379 90

Salaries of agents, etc., on lateral railroads in coal region.....2,641 38

Sundry expenses, extra engines, &c...3,670 59

Actual net expenses for year.....\$620,682 14

Add for materials on hand, Nov. 30, viz: Wood.....\$10,232 50

Bar, boiler, and sheet iron, steel.....4,193 75

Iron Castings.....3,075 00

Pig metal.....1,950 00

Car gearing, wheels, axles, springs, &c. 13,559 50

Engine gearing.....	5,809 33
Engine tires.....	6,480 00
Timber and lumber.....	3,470 00
Bituminous coal.....	1,268 00
Anthracite coal.....	440 00
Copper, lead, tin, brass, &c.....	3,147 80
Iron for tilt hammer.....	7,415 00
Iron for foundry.....	1,556 25
Tools, &c.....	697 50
	\$63,294 63
Deduct materials on hand, Dec. 1, '45..	32,100 48
	\$31,194 15

Total expenses.....\$651,876 29

Statement D.—Number of Engines, Cars, and all other Running Machinery on the Road, Nov. 30, '46

LOCOMOTIVE ENGINES.

39 First Class Engines.

24 Second do. do. (4 altered to first class, and

8 Third do. do. 1 sold since last Report.)

1 Second do. do. (used only for kyanizing

timber, "Delaware."

72

COAL CARS.

1 Eight wheeled iron coal car...4-7 11-0

3,019 Four do. do. do. ...2-43 5-0

1,042 Four do. wooden do. ...2-2 4-65

497 Four do. do. do. ...2-05 3-2

4,559* (Tons of 2240 lbs.) Average, 2-33 4-725

FREIGHT CARS.

5 Eight wheeled covered House, including 2 for

use of Road; 47 do. do. open platform do. do. 17 do.

do.; 156 four do. covered house do. do. 7 do. do.; 274

do. do. open Truck do. do. 206 do. do.—482.

PASSENGER CARS.

13 Eight wheeled Passenger Cars; 1 four do. do.

do.; 3 eight do. Baggage Cars; 2 four do. do.—19.

In addition to the above, the Company own: 34

eight wheeled Box Cars, extra Wood Tenders for

Coal Engines; 2 small Express Locomotives,

"Ariel" and "Picayune," for use of officers and lateral

roads; 2 small Passenger Cars for use of main

and lateral roads; 11 Stationary Engines at Depots

for driving machinery and pumping water, of 35,

14; 2 of 12; 2 of 8; 3 of 5; 1 of 6; and 1 of 4

horse power, respectively; 2 portable Wood Cutting

Steam Engines for Reading and Richmond depots;

50 Horses, chiefly for delivering Coal on Richmond

Wharves, and in Philadelphia, expenses of which

are paid by consignees.

Condensed Table, showing Disposition and Employ-

ment of the Engines belonging to the Company.

How Employed.	Classes.			
	1st.	2d.	3d.	Tot.

In daily use, in good order, on R. R.

or lateral road in coal regions...29 15 6 50

In workshops, under repair.....7 3 1 11

In good order, ready for use.....2 5 1 9

Altering to more efficient engines. 1 1 1

Out of use at present, "Delaware" 1 1 1

Totals.....39 25 8 72

Of which were made by

Baldwin & Co. Philadelphia.....32

Norris, Philadelphia.....4

Newcastle Manufacturing Company.....8

Eastwick & Harrison.....2

Locks & Canals, Lowell.....11

Dotter & Co. Reading.....1

Ross Winans, Baltimore.....1

Rebuilt by the Company.....8

Braithwait & Co. London.....5

72

Statement F.—Work and Repairs of Locomotive En-

gines owned by the Philadelphia and Reading Rail-

road Company, for the year ending Nov. 30, 1846.

* 67 Wooden Coal Cars have been altered and

used for Freight Cars.

How employed	Classes.			Total.
	1st.	2d.	3d.	
Reading railroad, transp. depart..	552,603	264,595	76,484	893,682
Reading railroad, construct. dept.		18,876	21,385	40,261
Reading railroad, roadway dept.		2,429	18,308	20,737
Total R. R.	552,603	285,900	116,177	954,680
On lat'l. roads in coal regions...	15,309	43,631	482	49,422
Total.....	637,912	329,531	116,659	1,014,102

Total No. tons hauled one mile, exclu-

sive of tender.....253,816 540

Average weight of loaded coal trains

down, exclusives of engine & tender 609-9

Do. do. empty up do do...197-7

Do. do. pass'ger trains do do...37-6

All tons of 2,000 lbs

COST OF REPAIRS OF ENGINES.

Wages of mechanics.....\$27,001 86

Materials, iron, steel, brass, etc.....15,926 84

Superintendence, tools, paints, oil, etc.. 4,302 90

Total cost.....\$47,231 60

Total No. of miles ran by all engines

owned by the company, from May,

1838, to November 30th, 1846.....3,285,067

Total No. tons hauled 1 mile between

same dates.....640,855,755

Statement G.—Cost of Repairs and Renewals of Coal,

Freight and Passenger Cars, for the year ending

November 30th, 1846.

COAL AND FREIGHT CARS.

Wages of all mechanics.....\$28,773 79

Iron, steel, brass, and all metals.....33,937 30

Timber.....7,550 14

Superintendence, tools, paint, oil, etc.... 7,026 10

Total.....\$77,287 33

No. gallons oil used by coal and freight

cars, during the year, including train

lamps.....20,393

No. lbs. tallow. do do do 35,016

COST OF REPAIRS AND RENEWAL OF PASSENGER

CARS.

Wages of mechanics.....\$2,310 70

Iron, steel, timber, etc.....2,230 23

Superintendence, tools, paint, varnish, etc 567 59

Total.....\$5,108 52

No. gallons oil used by passenger cars

during the year.....375

Number pounds of tallow.....388

Statement H.—Items of Cost, in detail, of Hauling

Coal per round trip of 188 miles, from Coal Region

to Tide Water and back with empty cars: transport-

ing an average load of 360 tons of coal each train.

No. Des. Rate. Amt.

Wages of engineer...2 day 2 50 \$5 00

do. " Firemen...2 do 1 50 3 00

do. " Conductor..2 do 1 50 3 00

do. " Brakemen..5-9 do 1 05 6 30

Wood for fuel.....14-92 cords 3 89 59 04

Oil for engine, tender

and lamps.....4-95 gallons 90 4 46

Oil & tallow for cars..360 tons 1 1/2 5 40

Rep. engine & tender. 188 miles 5-1 9 59

do. of coal cars.....360 tons 6-05 21 78

Renewals of sundries,

ropes, lamps, etc...360 do 06 2 16

Supplying water.....15 M galls 6 90

Asst. engines at Falls

Grade.....360 tons 1 1/2 5 40

Car couplers & greas-

ers, time keep'rs, dis-

patchers and turn-

ing crews.....360 tons 1 1/2 5 40

Allowance for engines

laying over, asst. en-

gines in snow storms

etc.....360 tons 2-6 9 36

Sundry expen's, charg-

able to this head...360 tons 34 1 22

\$140 01

Statement K.—Items of Cost in detail, of Running Trains, per daily trip of 92 miles.

Items of Cost.	No.	Des.	Rate.	Amt.
Wages of Engineer.....	1	day	1 80	\$1 80
do. " Firemen.....	1	day	1 00	1 00
do. " Conductors.....	1	day	1 50	1 50
do. " Brakeman.....	1	day	1 00	1 00
Wood for fuel.....	2 45	cords	4 00	9 80
Water used.....	2 1	M galls	6	15
Oil for engine & tender..	9	gall	90	81
Oil for cars.....	9	gall	90	81
Repairs of engine.....	69	miles	3 9	3 47
do. and refitting cars.				8 04
Hands at depot.....				2 27
Sundries for train.....				87

Equal to, at 71 through passengers per train, 44 4 cents per passenger.

Statement L.—Items of Cost, in detail, of Running Freight Trains, per daily trip of 92 miles.

Items of Cost.	No.	Des.	Rate.	Amt.
Wages of Engineer.....	1	day	2 50	\$2 50
do. " Fireman.....	1	day	1 30	1 30
do. " Conductor.....	1	day	1 35	1 35
do. " Brakeman.....	3	day	1 00	3 00
Wood for fuel.....	3 7	cords	3 89	14 39
Oil for engine and tender..	1 9	galls	90	1 71
Oil and grease for cars.....	65	tons	1 1	97
Repairs of engine and tender.	90	miles	6	4 50
do. " cars.....	65	tons	5 1	3 57
Depot hands, and other depot expenses.....				13 09
Water used.....	4	M galls	6	0 24
Renewals of sundry articles..	65	tons	3	1 95
Goods lost, stolen or damag'd				56

Equal to 75 6 cents per ton.

Statement M.—Cost of Hauling over State Road, for the year ending, November 30, 1846.

Amount paid State for Tolls.....	\$28,643 50
do. do. City Corporation for Tolls.....	350 00
Cost of Hauling across Schyl. Bridge..	1,166 38
Wages of Brakemen over State Road...	673 15
do. Agents in Broad Street.....	540 50
Repairs of Coal Cars over State Road...	1,389 50
do. Passenger do. do. do.....	330 26
do. Freight do. do. do.....	675 70
Cost of Engine, Hauling Coal Cars, and arranging Trains for State Road Engines, at junction with State Road...	5,444 25
Sundry expenses during year, &c.....	331 63

\$39,544 86

Statement N.—Points of Supply and Distribution of Coal on the Philadelphia and Reading Railroad, for the year ending, November 30, 1846.

Amount of Coal received from various lateral railroads in coal regions.	TONS.
West Branch Railroad, at Schuylkill Haven.....	472,633
Mount Carbon and Port Carbon Railroad, at Port Carbon, from Valley and Mill Creek Railroads.....	405,329
Mount Carbon Railroad, at Mount Carbon	228,497
Little Schuylkill Railroad, at Port Clinton	81,799

Total.....1,188,258

Where Delivered on Line of Reading Railroad.

Station or Turnout.	Total.
Orwigsburg.....	75
Port Clinton.....	6
Hamburg.....	971
Mohrsville.....	1,300
Between Mohrsville and Reading.....	1,042
Reading.....	35,738
Baumtown.....	1,854
Douglasville.....	1,433
Pottstown.....	3,696
Roy's Ford.....	318
Phoenixville.....	23,853
Valley Forge.....	1,480
Port Kennedy.....	4,079
Norristown.....	11,988
Lime Kilns below Norristown.....	1,369
Consheocken.....	23,604
Spring Mill.....	2,566
Manayunk.....	6,930

Falls.....	2,996
Germantown.....	5,362
Nicetown.....	5,720
Trenton Railroad.....	2,907
Junction with State Road.....	6,181
Philadelphia.....	198,582
Richmond.....	844,216
Total.....	1,188,258

Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Saturday, February 13, 1847.

INDEX FOR 1846.

The Title Page and Index for last years' volume were mailed with the Journal (No. 5) for Jan. 30th.

Reading Railroad Report for 1846.

We continue in this number, this important report, which was commenced in our last. It is, as last year, full and explicit. By referring to the report for 1845—see R.R.J. of March 14, 1846, page 170—it will be seen that the gross receipts for transportation, of all kinds, in 1845, were \$1,060,381; and the estimate for 1846 was, \$1,725,000—being an increase over the year 1845, of \$664,619; and by referring to the report now published, it will be seen, that the receipts for transportation during the past year are \$1,889,713, or \$164,713 more than the estimate of the managers, and \$829,332 greater than in 1845. It will also be seen that the ability of the company, for increasing its business hereafter, will be in proportion to the increased demand for coal, if the shareholders act judiciously. In 1845 they had 54 locomotives and 3104 cars for coal; and now they have 72 locomotives—most of the new ones are of the largest and most improved class—and 4559 coal cars—mostly of iron, averaging 4 7 tons each; and all the other improvements of the company are of an equally permanent character, and upon a plan equally extensive.

It appears that 1506 bars—or rails—equal to 235 tons of iron—have been removed from the two main tracks during the past year—of which 185 1 tons, valued at \$50 a ton, have been relaid in side tracks, and at depots along the line; and the balance, or 49 1 tons disposed of at, or is worth, \$35 a ton—showing a depreciation on this amount of \$11,007,50, and equal to four-tenths of a cent per ton on the entire tonnage of the road for the year.

Iron bridges have, it seems, been introduced with entire success, and the old wooden structures are being renewed with stone, as they require to be rebuilt; and we do not hesitate to say that the day is not distant, when anthracite coal will be used instead of wood in their locomotives, as we learn that a plan of engine has been devised by Mr. G. A. Nicolls, the engineer of the road, which promises success.

Great improvements have been made at the Richmond—or Delaware river—depot. A spacious new engine house and machine shop have been erected

there; and, indeed, the road is in every respect prepared for doing an increased business the ensuing year, without any material addition to the machinery.

The net earnings of the road for the year were \$1,037,795,21, and the balance, after paying interest on loans, taxes, etc., was \$402,292,29—an amount which, if divided among the shareholders, would give them upwards of 12 1 per cent. on the \$3,130,000 of stock issued—but it seems that the company have decided—and wisely, too, we think—to reserve this fund for the increase of machinery, and to pay off the loans as they fall due, and thus reduce their liabilities; and in lieu of making dividends in money, it is proposed to issue new stock to the shareholders for the amount.

It is peculiarly gratifying to us, and to many others, we are sure, to see this noble work—which has done so much, within the past three years, to cheapen fuel—thus assuming its proper position—to see it showing what may be done on a railroad properly constructed, and managed with spirit and energy.

A comparison of the business of the past two years will enable the candid observer to estimate, pretty accurately what will be the business of the current and following years. It needs not the foresight of a prophet to predict that the most sceptical on the subject, will, at an early day, be compelled to acknowledge that this road is without a parallel in the world. Its peculiar position, and the rapidly increasing consumption of coal, and manufacture of iron on its line, will always insure it an amount of business without a parallel. The great difficulty will, hereafter, be to increase its means of performance in a ratio with the demands upon it, unless early measures are taken to lay down a third track. It will not only have the business of its own region, but it must also receive large accessions of business from the interior of the State, and ultimately from the lakes, by the way of the Erie and Sunbury railroad.

It was predicted by many, ten years ago, that the Reading railroad would never be completed, and by others that, if completed, it would not pay a fair interest on its cost; yet we see that it has been completed, and, though only in its infancy, has earned more during the past year than six per cent. on its enormous cost; and we shall see more; we shall see, when it has a third track, and within ten years, that it will divide over eight per cent. on fifteen millions of dollars. This, it may by some be said, is another prediction; it is a prediction, however, which will become matter of history in a few years. We therefore again suggest to the rival companies, which are about to contend for the trade of the Schuylkill valley, that they come to an amicable arrangement in relation to the rates of transportation, and that they charge a price which will give each a fair return upon their investment. In such a course the coal consuming community will, we are quite sure, cheerfully sustain them. It is very evident that the increase of business in the Schuylkill valley, and its tributaries, will, in a very few years, require facilities beyond the present capacity of both works. Let them, then, adopt such a course as will be just to themselves and liberal to the community.

Bridge over the Illinois.

The Legislature of Illinois have passed a bill providing for the erection of a bridge across the narrows at the foot of Peoria lake, at the city of Peoria. This bridge is to cross at the place where William L. May now keeps a ferry, and will be of incalculable

able advantage to the city of Peoria, as well as to all the country surrounding it. Ample provision is made in the law to protect commerce, and insure a safe passage for every description of water craft.

Another Rally.

The last number of the Portland Advertiser says, that: "Another unexpectedly large and enthusiastic meeting last night, at the City Hall, placed the crowning consummation upon our adventure in the Lewiston and Waterville Railroad. Accidental circumstances retarded this result a few days—though it was abundantly pledged and assured—and last evening, on the final report of the Subscription Committee, a warm and substantial interest displayed itself. With most encouraging applause, the subscription of PORTLAND was carried up to one hundred thousand dollars, and a considerable sum beyond."

Anthracite Coal Market.

The "Ledger" states that the stock of coal east of New York is very small indeed, scarcely equal to the wants of consumers. In New York the supply, considering the soft, weather, is about sufficient.—Dealers begin even to think of having some left over. They find that foreign coal, which is abundant, and more arriving as ballast in almost every ship from England, very seriously interferes with the sales of anthracite. The best English lump coals are sold in New York at \$7 per chaldron of 36 bushels, 2800 lbs. Anthracite is \$6 50 per ton of 2000 lbs. (cartage extra in both cases.) For the same weight, viz: 2000 lbs., the price of English coal is \$5. Pictou coal is very dull at 50 cents less. This disparity will readily lead to the conclusion that the foreign articles must seriously interfere.

In Philadelphia, and along the line of the Schuylkill, consumers are supplied chiefly as wanted, there being no accumulations. But the wharves at Richmond are being filled up with coal very fast, waiting the opening of the spring trade. The coal market was never perhaps in a more healthy condition.

Illinois Canal.

The Sangamo Journal, of the 14th instant, states that since this work has been under the new direction, 604,000 dollars have been expended upon it, and that the estimate for its completion exceeds, by a trifle, 707,000. The Journal says further: "The bondholders will be able to finish the work for about 1,300,000 dollars—being about 300,000 less than the original estimate; which it is believed will be effected by September of the present year. The canal has a surface of 60 feet and a depth of 6 feet. The Illinois river during a good part of the past season has had but little more than two feet water upon its bars—rendering its improvement (to realize all the advantages which we have anticipated from the canal) absolutely necessary."

Railroad Scales.

One of the singular results of the great improvements in transportation by Railroad and Canal, is the invention of Scales of enormous capacity. Messrs. Ellicott & Abbott, of Philadelphia, advertise Scales "for weighing loaded cars in trains or singly." They say:

"The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extended across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad. We are prepared to make scales of any size to weigh from five pounds to two hundred tons."

American Railroad Matters.

The citizens of Waterville, Me., had another crowded rally on the 23d ult., in reference to their railroad. The town hall was filled to its utmost capacity, and nothing, it is said, could exceed the spirit and enthusiasm of all present. Eloquent and able speeches, of an animating and encouraging nature were delivered, and the speakers were continually interrupted by the loudest bursts of applause. The books being opened, the citizens, most of whom had subscribed very liberally before, stepped forward one after the other, and amidst shouts of approbation, made each a generous increase to their subscriptions. In the course of a very brief time, the sum of ten thousand dollars was added to the amount already on the books. The whole actual subscription for the upper road now amounts, as far as we can learn, says the Gardiner Blade, to about \$400,000—the sum with which the corporators have voted to break ground. There is no doubt that the work will be commenced in the spring, as early as the snow will permit.

The following table exhibits the healthy condition of the Boston and Albany road. The receipts are upon freights shipped from the East Albany depot. The aggregate income of the road, for the past 12 months, exceeds one million of dollars. The amount collected on freight forwarded from East Albany from January 1st, 1843, to December 31st, 1846, is as follows:

	1843.	1844.	1845.	1846.
	\$167,087 12	\$223,572	\$268,450 06	\$342,940 13
The increase of 1844 over 1843 is				\$56,484 88
The increase of 1845 over 1844 is				44,878 06
The increase of 1846 over 1845 is				74,490 07
The increase of 1846 over 1843 is				175,853 01

By the above it will be seen that the average annual increase for the last three years is nearly 40 per cent., and for the year 1846 over 1843, upwards of 100 per cent.

The city council of St. Louis, Mo., has passed resolutions asking permission of the legislature to borrow half a million of dollars on the faith of the city, to be loaned to a company to be formed for the purpose of constructing a railroad from St. Louis to the Ohio, with a view to a future connection with the Baltimore and Ohio railroad, or to some point on the lakes. The resolutions are to be transmitted to each of the Governors of the States of Missouri, Illinois, Indiana and Ohio, with a request that they be laid before the respective legislatures thereof, and also to each of the Mayors of Springfield, Cincinnati, Columbus, Pittsburg, Baltimore, Philadelphia and Boston.

The Cheshire railroad has recently contracted with Davenport & Bridges, of Cambridgeport, Mass. for six first class passenger cars, three second class and passenger baggage cars, and 100 freight cars to be delivered in July. A contract has been made with the Central railroad by the same well accredited builders, for a like number of passenger and freight cars to be delivered next fall. They have also contracted with the Northern, Concord, and other railroads now constructing or increasing their power and means of transportation, for cars to the amount of \$125,000.

The Boston Post says, "the work turned out by Messrs. Davenport & Bridges, speaks decidedly in their favor as skilful and faithful mechanics, whose vicinage to this city—the grand centre of railway movements—is an important advantage both to them and to railroad agents."

The Nashua and Lowell railroad company's petition for authority to construct a railroad in New Hampshire, has been summarily disposed of; but

the great questions of Danvers and Maine railroad connecting lines and the conflicting "air lines" to New York, cannot be thus easily pushed aside.—The Worcester railroad has recently issued a manifesto upon the subject of its branch to Milbury, or the germ of a line to Blackstone. Its Newton Falls line is now in operation.

The petitions for new railroads and branches to existing lines pour into the Massachusetts Legislature, who have a prospect of a long session, if all be fully and impartially heard.

The Albany Evening Journal is informed that Mr. Witt, the freight agent, sent off, one morning last week, 166 cars laden with flour, pork, etc., for the east. This is the largest train ever sent off in one day during the winter. The amount to be collected on them was \$3,101 93—a pretty good business for one day.

The stock for a branch from Old Colony railroad to Milton, has been subscribed. It is three miles long, and expected to cost \$60,000.

A proposition is now seriously entertained of a lease, by Maine and Eastern railroads, of the Portsmouth and Portland at six per cent., which has rushed the stock of the latter in a twinkling up to 98. A meeting of the stockholders was to be held on the 10th inst., "to decide if they will lease the road."

The earnings of the Michigan Central railroad in two months and six days, to December 1st, were \$99,550, or at the rate of \$540,834 per annum upon a cost of \$1,600,000. We learn that its cars are contracted for in its vicinage. The engineers have found the route from Kalamazoo to New Buffalo so favorable that it has been determined to run the road in a straight line through.

The works on the Providence and Worcester railroad are rapidly progressing, and will be open for trial by July next.

We are informed that the trustees of the Bath Academy have voted to subscribe \$2000 to the stock of the Portland, Bath, and Kennebec railroad.

The subscription to the Kennebec and Portland railroad is going on fairly. The Brunswick paper states that \$46,000 had been subscribed in that town, previous to the 22d ult., to the Kennebec and Portland road. Brunswick and Topsham were assessed \$60,000. Freeport had come up to \$13,000, being 3,000 more than her assessment. In Vassalboro', \$10,400 had been subscribed up to Friday last, and the returns not all in. This town was not drawn upon by the Directors in the apportionment of the \$500,000 to be raised on the route previous to the commencement of the road. Sidney has also subscribed upwards of \$10,000. At a meeting of the Directors in Brunswick, on Thursday of last week, returns were received of \$490,000 of the \$500,000 required on the route; but all the papers were not forward to them. It is known that the actual amount is much larger than this. (These subscriptions are exclusive of over \$250,000 subscribed out of the State.) The Directors determined to go ahead immediately.

We find the following table in a Massachusetts paper, and give place to it partly for the purpose of indicating the regularity with which, after the distance of six miles is attained, the rate of fare is placed at two and a half cents per mile, as near as may be for all distances, and also to show the names of the towns—not one of them known or distinguished for large population—through which this road is laid—a road, the stock of which is the highest with one exception, in the country. It is largely patronized of course, from the country beyond its interior

terminus. This road is now petitioning for leave to establish a depot in Boston.

Table of Distances and Fares over the Boston and Fitchburg Railroad.

From Boston to	Miles.	Total.	Fares.
Somerville.....	2	2	12½
Porter's.....	1	3	12½
West Cambridge.....	3	6	12½
Waltham.....	4	10	20
Weston.....	3	13	30
Lincoln.....	4	17	40
Concord.....	3	20	50
South Acton.....	5	25	65
West Acton.....	2	27	65
Littleton.....	5	32	80
Groton.....	5	37	90
Shirley.....	3	40	1 00
Lunenburg.....	3	43	1 00
Leominster.....	2	45	1 15
Fitchburg.....	5	50	1 25

Usual time from Fitchburg to Boston, 2½ hours.

St. Lawrence and Atlantic Railroad.

We are happy to learn, as we do, from good authority, that this road is getting on as well as is possible this winter. Our informant says that the progress is not so rapid as might be wished—in consequence of the snow, and light quality of work, on the "1st division"—but, adds the writer, "when Spring lets us get out once more, we will make up for lost time. Everything looks prosperous for our road, as well as for the Montreal and Lachine road. We are to have a Magnetic Telegraph from Montreal to Toronto, which will connect us with Boston, New York and Philadelphia, and it is in itself but a forerunner of a railroad from this city to the same place, to connect with the Great Western railroad, now in progress from Hamilton, west. We are likewise to have a Telegraph from Montreal to Quebec, and from thence to Halifax; so that we shall soon be able to give you the news by the steamers in advance of everything, and by way of Quebec, Montreal, Toronto, Buffalo and Albany; something of a roundabout way, to be sure—but it will answer every purpose.

"The St. Lawrence river has closed over at length—to remain so, I hope, until Spring. The prospects for a bridge over the St. Lawrence are, I am happy to say, very flattering; and there remains but little doubt in the minds of the many, that the bridge will be constructed in spite of all obstacles. It is a gigantic project, and if successful, will be a lasting monument of the civil engineering of the 19th century. We have plenty of snow in this part of the world, and some cold weather; so cold that it would make some of the goodly inhabitants of your city wonder if they were to experience it. The thermometer this morning was only at 10 degrees below zero, but has been down (in Quebec) as low as 20 degrees, I believe, this winter. The new Governor General of Canada, Lord Elgin, is to arrive here today. He is a firm friend of internal improvements, so it is understood, and will place no obstacle in the way of the many improvements that are at present in prospective."

Atlantic and St. Lawrence Railroad.

At a meeting of the members of the St. Lawrence and Atlantic Railroad Company, held in Montreal, on the 20th ult., a report was made by the Directors, from which we copy the following paragraph regarding the Lewiston and Waterville railroad enterprise:

"The board has received the pleasing information of a charter having been granted by the State of Maine, for the construction of a railroad branch from the great artery at Lewiston, about 30 miles this side of Portland, to Waterville, on the Kennebec river; and the requisite stock for the organization of this company having been subscribed, the

work is to be commenced forthwith. A charter has also been granted for the extension of this road to Bangor, one of the largest and most thriving towns in the State, which will undoubtedly be commenced soon; and a further extension of the line is contemplated in the direction of New Brunswick. This will not only open an extensive market for western produce passing hence over the St. Lawrence and Atlantic railroad, but it will give to Canada a direct and expeditious communication with the lower provinces."

Anthracite Coal Trade.

We lately published from the Cumberland Civilian, some interesting statistics connected with the coal region, trade, etc., of Maryland. The *Miners' Journal*, of Pottsville, Pa., on Saturday week, comes to us nearly filled with reports, statistics, and general information concerning the great anthracite coal region of Pennsylvania, its trade, business, facilities, prospects, etc. From these we gather, that the amount of anthracite coal sent to market during the year 1846, was, 2,343,992 tons, being an increase over the previous year of 320,940 tons; that of this amount, Schuylkill county alone furnished 1,295,928 tons, which amount was almost entirely transported over the Reading railroad, the canal of the Schuylkill Navigation Company, (until within the past five years, furnishing the only means of sending coal to market from this region,) having been closed nearly the entire season in undergoing enlargement and improvement of its capacity, in order to an increased business the ensuing year, and hereafter.—Its present capacity is for 180 ton boats, formerly for only 60 to 65 tons. Since the commencement of the trade in 1820, when 365 tons was the amount produced, there have been an aggregate amount of 15,811,204 tons sent to market, of which Schuylkill county alone, since 1825, when its trade commenced, has furnished the proportion of 8,629,746 tons more than all other places added together.

There are 110 operators in this region, of whom 14 produced and shipped over 30,000 tons each; some of these as high as sixty odd thousand; 9 over 20,000 and under 30,000 tons; and 9 over 10,000 tons and less than 20,000. The total number of collieries within this region are 142, of which 107 are above water level, and 35 below. There are already 51 coal breaking machines in operation by steam power, where but two or three years since all coal was broken by hand, with the hammer.

There are 105 stationary steam engines employed in hoisting and breaking coal, varying in capacity from 10 to 90 horse power each, making, together, an aggregate power of 2,921 horses, or equal to the labor of 14,505 men, estimating five men as equal to one horse power.

Of railroads and canals connected directly with the anthracite coal trade of Pennsylvania, there are already completed of the former, 478 miles, including an estimated amount of 60 miles under ground; and of the latter, 417 miles—forming together an aggregate cost of \$33,920,000. Of this amount the Reading railroad alone, with its cars and locomotives, are put down at \$11,000,000; and the Schuylkill canal, enlarged, \$5,675,000. The Reading railroad has upon it, and in connection with it, 71 locomotive engines, and 4,549 coal cars, of which 3,020 are iron, and 1,539 wooden cars; besides 482 cars for merchandize and use of the road, and 17 passenger cars.

The product of coal from the Schuylkill region, it is supposed, will be largely increased the coming year, in consequence of the canal being completed and ready for operation so soon as the season opens.

Central Railroad.

We learn with pleasure, that the amount of subscriptions to the *Pennsylvania Central Railroad*, necessary to secure the Charter, have now nearly or quite been made up, and the Committee, in whose charge are the lists, will be ready to make their report at an early day. We have believed, from the first broaching of this great scheme, that the advantages to be derived from the consummation of this project, must prove of incalculable benefit to the city of Philadelphia—and were our citizens to subscribe individually, or were the city itself, in its corporate capacity, to subscribe for double the amount now asked for—upon which, in the shape of dividends, they should not receive the first cent—still, in our judgment, both our city and our people would realize a benefit, indirectly, from the establishment of this road, which would pay roundly for the outlay. This is our belief, and we hope to see the work pushed forward without unnecessary delay. The plan is immense, and we cannot but believe that the result will, in the end, prove proportionately profitable. In connection with this subject—we publish below—an article which we find in the *New Orleans Bulletin*, of the 28th ult., and which cannot fail to be read by the citizens of this State with deep interest. "As a business transaction," very correctly remarks a cotemporary, "this road is truly a master-stroke of policy." The "Bulletin" says:—

Among all the works of internal improvement that have been made or projected at the North, for the purpose of attracting the commerce of the West, there is none more calculated to injure New Orleans, and to benefit the projectors, than the *Pennsylvania Central Railroad*.

This work is to be a continuous Railroad, connecting Philadelphia and Pittsburg, and with the ulterior object of continuing it on to Cincinnati. The subscription we see is completed, and the work will now go on promptly and rapidly. In the discussions that have been had on the subject in Philadelphia, we observe that great stress is laid upon the probable quantity of travel over the road—this is of high importance to the stockholders, and will no doubt add greatly to their profits, but is a matter of indifference to us in New Orleans—it is the *TRADE* that it will divert from us, that we are to look to, and which should attract our attention.

We have hitherto been sleeping in New Orleans, on the subject of the Western trade—we are still sleeping, and in fancied security, are dreaming that our natural advantages are such, that nothing can divert the trade from this city—that God Almighty has done everything for us, and that we need not make any exertion for ourselves—it is a great, and if persevered in, will prove a fatal error, and we shall waken up some of these mornings and find the whole of that immense and rich commerce is flowing almost *en masse*, over the mountains direct to the Atlantic cities.

The natural advantages of New Orleans, are undoubtedly great, and particularly in the free navigation of the Mississippi and its tributaries, unburdened with tolls, to which the artificial works will always be subject; but then, these advantages are not altogether unincumbered—the navigation of the Ohio is interrupted by ice in the winter, and low water in summer. The produce is subject to

double freights, insurance and shipping charges, if to be sent coastwise, from New Orleans, and increased freight above the rates from the Atlantic ports, if destined for Europe.

We have already seen the immense diversion which the New York and Pennsylvania canals have made from the commerce which legitimately belongs to New Orleans—a diversion which is annually increasing and extending its sphere of operations. Cotton loaded boats from the Tennessee and Cumberland rivers, and tobacco and flour laden ones from St. Louis, are already to be seen stemming the current of the Ohio, with cargoes destined for New York, by the Ohio canal and the Lake route, or for Philadelphia, by the great Pennsylvania canal. These lakes and canals, however, are frozen in winter—frozen earlier and later than the river, which prevents a large additional quantity of produce from going by those routes, and causes it to come to New Orleans during the winter, (if an open one, like the present) or by the early Spring rise. Philadelphia, however, has determined to overcome this disadvantage, by the construction of a railroad that will, at all seasons, afford a certain and cheap conveyance to her store-houses of the various productions of the teeming West.

The produce that accumulates on the upper portion of the Ohio, during the low waters of summer and autumn, is shipped to New Orleans, by the first fall rise; and that which collects during the winter comes down on the opening of the navigation in the spring; but whilst our intercourse is thus suspended from the above causes, Philadelphia, by this new road, will be drawing these accumulations to her own warehouses. Even if this road was to terminate at Pittsburg, the injury to us will be great, but it will, as a matter of course, be extended to Cincinnati, and no doubt in a very few years be continued through Indiana and Illinois to St. Louis; each mile it is extended, renders it more desirable and advantageous for every section of the country to be connected with it; when once it reaches Pittsburg, Cincinnati will, of course, lose no time in placing herself in direct communication with the Atlantic.

One, among other obvious results, of a railroad from Cincinnati to Philadelphia, would be to deprive New Orleans of nearly the whole of the immense pork and lard trade, for, with this railroad existing, the hogs, after being killed and dressed in Cincinnati, will, in that state, be placed in cars, and in 36 or 48 hours will be in Philadelphia, where they can be cured at the same expense, and are at market by a land route of about 500 miles, instead of a double voyage by water of 3000 miles, saving double freights, double insurance and charges; the transportation is also saved on the barrel, salt and brine, the weight of which is at least one-half that of the meat; the article is at market in November and December, instead of April or May, whether it is intended for home consumption in the Atlantic ports (to which the largest portion of the pork is shipped from N. Orleans) or in foreign markets.

The freight by this railroad route to Cin-

ninnati, would not exceed half a cent per pound, which, (as it is paid only on the actual weight of the meat) would be only one dollar per barrel; and the whole cost of delivering it there would be much less than one-half at which it could be done via New Orleans.

We received, last season, in New Orleans, 47,303 hhds., 369,601 bbls. and 10,233,452 lbs. in bulk of pork, and 107,639 bbls. and 334,969 kegs of lard; and the loss of even one-half of this item of pork in the trade of the city, would be no trifling matter.

Though we have cited Pork (as being a prominent article of produce in the commerce of New Orleans) to show the injurious effects from the exertions that are making to divert the trade of the West from our city, they will have a like effect on the other leading articles, and will also greatly injure us in the supplies which we furnish to the West. This movement on the part of Philadelphia is a master-stroke of policy, for it gives her a double hold on the trade by both Canal and Railroad, keeping up a constant intercourse at all seasons and under all circumstances, and affording her great advantages over all her neighboring cities; we consider it the most important measure which that city has ever adopted to promote her permanent prosperity; and we have called attention to it that our citizens may be aware what is doing elsewhere calculated to affect the interests of New Orleans so injuriously, and that they may be prepared to suggest and adopt some measures of counteracting effect. We should recollect that it is not only one city, but that all the great commercial emporiums on the Atlantic are engaged in this struggle; and whilst they are all thus striving in zealous rivalry with each other, they are in fact unitedly working against New Orleans—as it is the natural and legitimate commerce of this city, which they are each separately endeavoring to appropriate to themselves.

Norris' Locomotive Steam Engine.

It must be peculiarly gratifying—says the last number of the New York Farmer and Mechanic—to every friend of his country, to observe the rapid progress of the mechanic arts, and the almost unrivalled combinations of skill and enterprize exhibited by many of her noblest sons, whose well-earned laurels, and increasing reputation, not only in our own land, but also abroad, so deservedly render their names a rich inheritance to the country of their birth and operations. To such men we look with an honest and heartfelt pride, and cannot but feel that to them we owe far more of real glory and true excellence, as a nation, than all the achievements of conquest could ever produce.

Among those to whom we are indebted for many of the most excellent specimens of American skill and well directed enterprize, and those which have attracted almost universal admiration abroad, none perhaps, at the present day, stand more conspicuous than William Norris, Esq., of Philadelphia, whose well known superiority in construction and excellence of workmanship, entitle his LOCOMOTIVE STEAM ENGINE to a more than passing notice.

The several valuable improvements which he has introduced in the construction of his engines, their great economy in regard to fuel, being adapted to anthracite, bituminous coal, coke, or wood, their

simplicity, and consequent small amount of repairs, and the facility with which such repairs may be made, together with the most perfect adjustment of the working parts, and the introduction of the "composition metal," by which a great saving in the amount of repairs is effected, combine so many desirable advantages, that we are almost at a loss which most to admire, their superiority of construction, their beauty of workmanship, or their speed and steadiness of motion.

Mr. Norris has also introduced the manufacture of locomotives of eight wheels, having the adhesion of four, on a new and improved plan, with the weight on the four equalized; (of all the various dimensions, classes, etc.) of a superior description, and which are attracting much attention.

In addition to the numerous orders which Mr. N. has filled for almost every State in the Union, he has furnished engines for England, Prussia, Austria, and other countries in Europe, all of which have given the highest satisfaction, and, judging from the numerous commendatory letters which these have elicited, from the agents of these governments, (some of which we have had the pleasure of perusing) they have been received even with enthusiasm. The following certificate of the Directors of the Vienna and Raab Railroad Company, Austria, as translated from the German, we give as a specimen of others. The Directors say:—

"The Locomotive Steam Engine ordered and received from the manufactory of William Norris, Esq., of Philadelphia, U. S., called the "Philadelphia," has completely succeeded in the performance required at her trials, and on a temporary Railroad, where there exists curves of 300 feet radius, with an elevation of two per cent. and more, the "Philadelphia" ran with all possible security and most extraordinary speed.

"The superior quality of these Engines, as well as the simplicity of their construction, the great facility of producing steam, their easy management, and particularly their economy in fuel, compared with the Engines built in England, etc., was the inducement of the Vienna and Raab Railroad Company to order more of these machines; and we do, with the greatest satisfaction, recommend them sincerely to all other Railroad Companies, which will require Engines.

(Signed) JOHN BARON DE SINA,
IGNAZ BARON DE DOBLHOFF,
Directors of the Vienna and Raab Railroad Co."

The following extract from the London Mining Journal of June 1, 1839, although it has before appeared, will be read with interest. It refers to the trial engine sent over by Mr. N., for the Birmingham and Gloucester Railway. The Journal says:

"As some doubts were entertained as to the correctness of the representations made, respecting these Engines, we have pleasure in giving the following particulars as to the Engine sent over to this country by Mr. Norris, and the work it has actually performed on the Grand Junction Railway, in conformity with the agreement to which we have alluded. The "England" weighs about eight tons, without water or fuel; she is also built much lower and smaller than the Engines commonly in use here, and has six wheels, the driving pair being four feet in diameter. The cylinders are ten and a half inches in diameter, and are enclosed in proper cases to prevent radiation—stroke eighteen inches. The machinery is of the simplest construction, and consists of a much smaller number of parts than we have been accustomed to see. The cylinders are placed on the outside of the framework, which allows the advantage of a straight axle, and the general appearance of the Engine more nearly resembles that of the old "Rocket" Engine than any with which we are acquainted. The Engine is got up in a most superior style, and is finished even to the most minute particular in a very beautiful and workmanlike manner, every part having been executed with perfect accuracy by means of self-acting machinery."

Boston Railroads.

A writer in a late number of the New York Commercial Advertiser, has the following in relation to the Boston railroads. It will be seen that all the railroads radiating from Boston, there is none which has not exceeded in its amount of traffic even the most sanguine anticipations of its friends. The fact that these roads carried in 1845 a number of passengers three times as large as the population of Massachusetts, will be quite surprising to those who have never seen the statistics on this subject. The statements of the writer are another proof of the well known fact that railroads create every where more travel than they at first accommodate. The remarks on the comparative advantages of railway and water conveyance are commended to the attention of such as are moved by the matter of steamboat competition.

Boston, Jan. 15, 1847.

In my last some account was given of the line of railroad between this city and Albany. It is now proposed to give some further statistics which go to show how far the actual result of the traffic on the railroads in this vicinity has exceeded the original estimates formed by the projectors in their commencement. Taking the Lowell, Worcester and Providence railroads, the freight business of 1845 exceeded the original estimates from three to five times, and the passenger business from six to nine times. These roads, together with the Eastern railroad, were all in operation in 1840, the latter having been opened in autumn of 1839. Their aggregate length is 160 miles. Their total aggregate receipts were

In 1840	\$900,857
In 1846	1,557,462

Showing an increase in five years of 72 per cent. or an annual average increase of 14 1/2 per cent.

The average receipts for the year 1845 were about \$9,500 per mile of road.

It appears that the increase in the traffic has been greater on passengers, as compared with the original estimates, than on freight. This may be said of railroads generally.—When first opened for general traffic, it was not supposed that they would reach a greater speed than 12 to 15 miles per hour; but it was soon discovered (in the progress of improvements in their construction, and in loco motives,) that a higher speed would be attained; and trains of passenger cars now move on most of the roads in this vicinity with a running speed of 25 to 35 miles per hour, exclusive of stops to take in wood and water, and to receive and discharge passengers; or the speed, including all stops, may be taken at 22 to 28 miles per hour. On well constructed roads it has been shown by experience that a speed of 30 miles per hour (including two stops) is a pleasant and agreeable motion, and may be maintained without any extraordinary expense.

It appears from official documents that the six railroads radiating from Boston, carried in the year 1845 about 2,400,000 passengers, which is nearly three times the population of the state. This great number of passengers is the result of the great facility the road affords in the ease, safety, certainty and speed of transit.

It can no longer be doubted by any man who will examine the subject with candor, that for all transportation requiring celerity and certainty, the railway is superior to the best water conveyance. With a moderate velocity, a vessel is easily propelled through water; but to increase the speed, produces an increase in the resistance of the water, equal at least to the square of the velocity. That is, a boat moving 20 miles per hour, requires at least four times the power that would propel it 10 miles per hour. Hence the great increase of power required to raise the speed of steamboats. A man will run through the air with very little resistance; but how fast would he run through water? The rail car moves through air, having no other difference except the friction, which requires one pound to move 270 pounds. A little reflection will convince any sensible man that steamboats can never compete with good lines of railroads for speed.

Viewing their superiority for the conveyance of passengers, or whatever requires high speed, with their capacity for every kind of transportation during the winter, (when rivers in this climate are closed) their great importance to our social, as well as our commercial interest, is obvious to the least reflection.

This city has largely reaped the benefits of this improvement, as also the country through which the railroads pass. To them it has truly been "an epoch," giving new vigor to every species of industry.

Effects of the Snow Storm on Railways.

The York and Newcastle, the Scarborough, and the Whitby and Pickering Railways were on Sunday, Monday and Tuesday last stopped up with snow. It covered the rails in some parts to the height of six feet, being about level with the tops of the carriages. This of course put a damper on steam power, but only for a time, the snow being by contrivances, quickly cleared away, notwithstanding the immense masses in which it had collected, and the trains ran when every other mode of conveyance was effectually stopped. Lately, the demand in York for coals has been greater than the supply, and the railway has been the only means for its conveyance. Had the railway not been in existence, York and other places must have suffered severely from want of this indispensable material. We are told that the passengers of one of the trains from Whitby were sadly put about by being unexpectedly stuck fast in the snow. The train became fairly imbedded, and could neither proceed nor return. Some passengers determined upon taking up their abode in the carriages—others, more bold and less inclined to conform to circumstances, came to the resolution of exploring a better retreat, and having penetrated through the snow, fortunately arrived at a cottage, the proprietor of which happened to be a kind of providore to a few working people residing in the place. His snow-driven visitors were just about as many customers as he could accommodate with provisions, and his cottage was occupied to every inch the flooring could hold. The

snow storm came unexpectedly, and was unusually heavy, and therefore the inconvenience attending it will perhaps not be felt again. At all events it has been demonstrated that railways are better enabled to meet it than the old mode of conveyance. No accident of any importance, that is, no injury to life or limbs, we believe, has been sustained by this heavy fall of snow.

A Railway Train without a Passenger.

—A circumstance occurred at the North Union Railway station at Preston, on Sunday last, to which there is probably no parallel since the opening of the railway. The train which leaves the Preston station at half-past four o'clock in the afternoon took its departure without a single passenger. Considering that the traffic from Preston is generally so extensive, it is rather singular that such an event should have happened. The different officers present when the train left, declared their belief that a similar circumstance had never before happened at that station.—*Manchester paper.*

New Safety Luggage Vans.—The Eastern Union has just received from Lancashire a supply of luggage vans, constructed on a principle that combines safety to the train, with accommodation for the luggage. The van is rather longer than a second-class carriage, considerably higher, and so firmly tied by iron-work, as to be capable of resisting a very powerful shock. The fore-breast is made of iron, the sides are surrounded by iron stags, the buffers are so strong, and the screws so powerful and elastic, that one would think they could not be snapped in a collision. The interior of the van is divided into compartments, so as to carry luggage for different stations; and the guard has a room in the end next the train, where he can use a power-break, and, at the same time, see a considerable distance before the engine. It is said that similar vans are to be placed on the London and North Western line.—*Herald's Journal.*

Improvement of the Severn.—The River Severn, which is subject to alternate floods and droughts, has, during the last two years, been greatly improved by dredging, and by the erection of gigantic weirs and locks. These works are now completed from Bewdley to Worcester, a distance of seventeen miles, and from Worcester to Gloucester the river is being deepened by dredging and closer embankment, the Severn Act limiting the erection of weirs within the county of Worcester. By the operation of dredging, long rocky shoals have been entirely removed. The hardest rocks are first blasted under water, and, therefore, easily removed by the dredging machines. Upwards of 200,000 tons of marl, rock, gravel and soil, have already been raised from the bed of the Severn by Messrs. Grissel and Peto's dredging machine alone, besides what has been removed by another contractor. At Gloucester it has been necessary to remove the entire foundation of one of the piers of the old bridge, and in the course of this operation, some curious relics of ancient coins have been discovered.

French Coal Mines.—The Report of the Engineer appointed by the administration of roads and bridges in France, states, that the country is in the third rank as regards the production of coal; England and Belgium being the first and second. The production of England annually is 23,500,000; of Belgium, 4,500,000; of France, 3,783,000; and of the Zollverien, 3,000,000 tons. France contains 425 coal mines, on a surface of about 450,000 hectares; of these 173 are not worked. These mines employed in 1844 nearly 30,000 laborers. The amount of coal raised being insufficient for the consumption of the kingdom, about 1,500,000 tons are imported from England and Belgium. The number of steam engines of all sorts employed in France in 1844 was 4,310, of 65,950 horse power, about one-twelfth of the force employed in England. The quantity of iron consumed in the same year, was, in France, 480,000 tons; four times that used in Belgium, which was 120,000 tons; but only one-third of the English consumption, which was 1,200,000 tons; the amount consumed by the Zollverien in 1844 being 800,000 tons.

Railways and Fresh Herrings.—Herrings caught at Brighton in the morning, are sold in the Midland counties in the afternoon. This arises from the facilities of transit by the London and Brighton and London and North Western Railway, "and such has been the effect in the reduction of prices," says a Birmingham correspondent, "that the finest quality can now be had at the rate of from 20 to 25 for a shilling, being a reduction of nearly 200 per cent."

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 ft. with lathes, work benches, Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

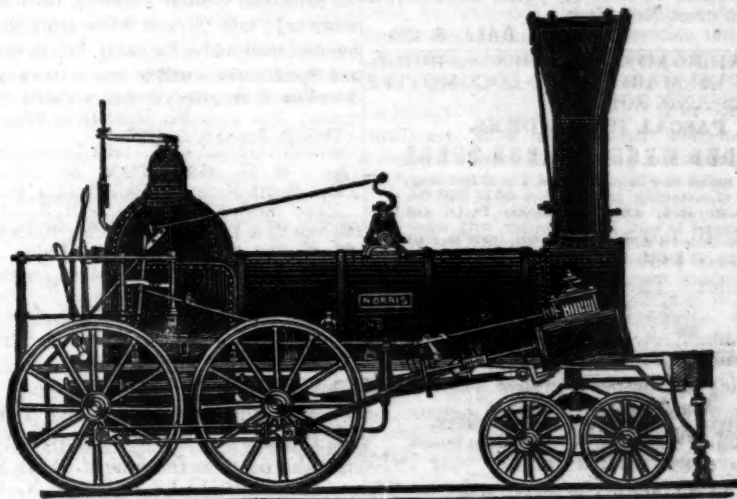
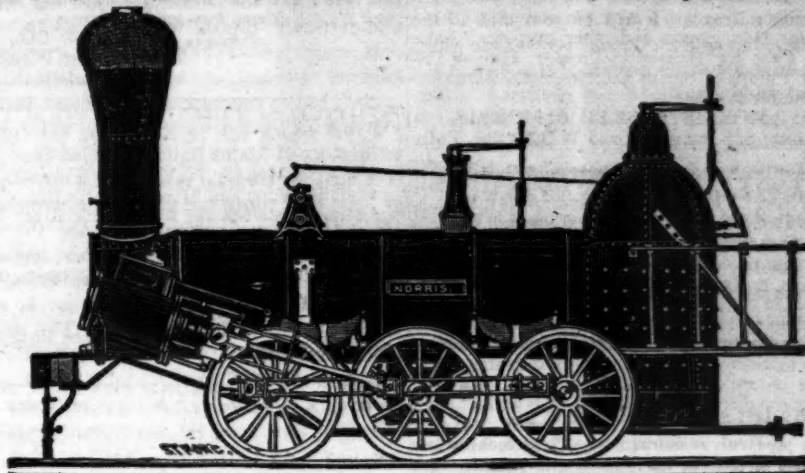
For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.

RAILWAY IRON.—THE BEST QUALITY of English Heavy H Rails—60 lbs. to the yard—now in store, landing from the vessel, and on ship board to arrive, for sale on most favorable terms by DAVIS, BROOKS & CO.,

Jan. 2. [117] 68 Broad St., New York.

NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1	15 inches Diameter of Cylinder, × 20 inches Stroke.
"	2	14 " " " × 24 " "
"	3	14½ " " " × 20 " "
"	4	12½ " " " × 20 " "
"	5	11½ " " " × 20 " "
"	6	10½ " " " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY, a45 President of the Newcastle Manuf. Co.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON Mar. 20th 4 South Front St., Philadelphia.

KEARNEY FRIE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.
Peter Cooper, }
Murdock, Leavitt & Co. }
J. Triplett & Son, Richmond, Va.
J. R. Anderson, Tredegar Iron Works, Richmond, Va.
J. Patton, Jr. } Philadelphia, Pa.
Colwell & Co. }
J. M. L. & W. H. Scovill, Waterbury, Conn.
N. E. Screw Co. } Providence, R. I.
Eagle Screw Co. }
William Parker, Supt. Bost. and Worcester R. R.
New Jersey Malleable Iron Co., Newark N. J.
Gardiner, Harrison & Co. Newark, N. J.
25,000 to 30,000 made weekly.

LOCOMOTIVE AND MARINE ENGINE BOILER BUILDERS. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS,
Warehouse S. E. corner 3d and Walnut Sts., Philadelphia.

PATENT INDESTRUCTIBLE WATER PIPES. The subscribers continue to manufacture the above Pipes, of all the sizes and strength required for City or Country use, and would invite individuals or companies to examine its merits. This pipe, unlike cast iron and lead, imparts neither color, oxide or taste, being formed of strongly riveted sheet iron, and evenly lined on the inside with hydraulic cement. While in the process of laying, it has a thick covering externally of the same—thus forming nature's own conduit of stone. The iron being thoroughly enclosed on both sides with cement, precludes the possibility of rust or decay, and renders the pipe truly indestructible. The prices are less than those of iron or lead. We also manufacture Basins and D. Traps, for Water Closets, on a new principle, which we wish the public to examine at 112 Fulton street, New York.

J. BALL & CO.
TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

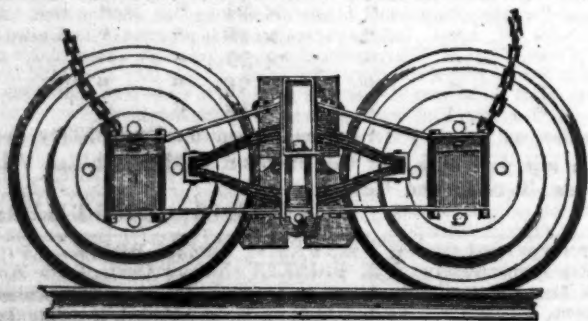
From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. corner of Third & Walnut Streets,
PHILADELPHIA.

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office, No. 105 Chestnut street.

RAY'S EQUALIZING RAILWAY TRUCK.—THE SUBSCRIBER having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East

LOCOMOTIVE AND CAR AXLES.

The Subscribers are now prepared to receive orders for the well known and approved *Reading Locomotive and Car Axles*—drawn to any required pattern from *Bloom Iron only*. Address

SAM'L KIMBER & CO.,
Willow Street Wharf,
Philadelphia, Pa.

NOTICE TO RAILROAD CONTRACTORS.

PROPOSALS will be received at the Office of the Boston and Maine Railroad, No. 60 State street, Boston, until Monday, the 8th day of February next, for the Graduation and Masonry on the line of Road in Andover, between the Merrimack River and a point of intersection with the old Road.

For examination of profile and work, application may be made at the office of the Engineers, at the Depot in South Andover.

THOMAS WEST, President
Boston and Maine Railroad.

January 22, 1847.

NOTICE TO RAILROAD CONTRACTORS.

Proposals will be received by the Subscriber, at the office of the Michigan Central Railroad Company, at Detroit, until the 16th day of February next, for Grading the first thirteen miles of the Extension of the Michigan Central Railroad, from Kalamazoo, westward; said thirteen miles contains about four hundred thousand cubic yards of earth work. Plans and Specifications will be ready for examination at the office of the subscriber after February 1st.

J. W. BROOKS, Supt. & Eng.

Detroit, January 5, 1847.

A. & G. RALSTON & CO., NO. 4

South Front St., Philadelphia, Pa.

Have now on hand, for sale, Railroad Iron, viz: 180 tons 2½ x 1 inch Flat Punched Rails, 20 ft. long.

25 " 2½ x 1 " Flange Iron Rails.

75 " 1 x 1 " Flat Punched Bars for Drafts in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures.

RAILROAD IRON.—THE NEW JERSEY

Iron Company, Boonton, N. J., are now preparing to make Railroad Bars, and are ready to take orders or make contracts for Rails, deliverable after the first of December next. Apply to

FULLER & BROWN, Agent.

No. 139 Greenwich, corner of Cedar street.

September 18, 1846.

NICOLL'S PATENT SAFETY SWITCH

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee

G. A. NICOLLS,

Reading, Pa.

RAILROAD IRON.—THE SUBSCRIBER'S

New Rail Iron Mill at Phoenixville, Pa., is expected to be ready to go into operation by the 1st of September, and will be capable of turning out 30 to 40 tons or finished Rails per day. They are now prepared to receive orders to that extent, deliverable after the 1st of October next, for heavy rails of any pattern now in use, equal in quality and finish to best imported.

PIG IRON.—They are also receiving weekly 150 to 200 tons of No. 1 Phoenix Foundry Iron, well adapted for light castings.

REEVES, BUCK & CO.,

45 North Water St., Philadelphia,
or by their Agent, **ROBT. NICHOLS,**
79 Water St., New York

THE SUBSCRIBERS, AGENTS FOR

the sale of
Codorus,
Glendon,
Spring Mill and
Valley, } Pig Iron.

Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay orders for which are promptly supplied.

SAM'L KIMBER & CO.,

59 North Wharves,

Jan. 14, 1846. [1y4] Philadelphia, Pa.

river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846.

W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the best and most economical truck now in use.

[Signed,] **WILLIAM ROE,** Supt of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845.

[Signed,] **G. A. NICOLLS,**

Supt. Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use.

[Signed,] **T. L. SMITH,**

Jersey City, November 4, 1845.

N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car. For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot,

[Signed,] **JOHN LEACH,**

Jamaica November 12, 1845. }

1y19

Supt Motive Power.

RICH & CO'S IMPROVED PATENT SALAMANDER SAFES.

Warranted free from dampness, as well as fire and thief proof.

Particular attention is invited to the following certificates, which speak for themselves:

TEST No. 10.

Certificate from Mr. Silas C. Field, of Vicksburgh, Mississippi.

On the morning of the 14th ult., the store owned and occupied by me in this city, was, with its contents, entirely consumed by fire. My stock of goods consisted of oil, rosin, lard, pork, sugar, molasses, liquors, and other articles of a combustible nature, in the midst of which was one of Rich's Improved Patent Salamander Safes, which I purchased last October of Mr. Isaac Bridge, New Orleans, and which contained my books and papers. This safe was red hot, and did not cool sufficiently to be opened until 16 hours after it was taken from the ruins. At the expiration of that time it was unlocked, when its contents proved to be entirely uninjured, and not even discolored. I deem this test sufficient to show that the high reputation enjoyed by Rich's Safes is well merited.

S. C. FIELD.

TEST No. 11.—Certificate.

By the fire which occurred in this village on the 27th July last, our Law Office, together with many other buildings, was destroyed—we had in our office one of Rich's Improved Patent Salamander Safes, which, though heated red hot, preserved, without being the least damaged, many papers valuable to our clients—the envelopes of a few papers being slightly scorched. Some twenty-four hours after the fire, the Safe was removed, and so hot was it, that several hours were required for it to cool off. Our office was in the second story of a large brick building, all the wood used in construction of said house being pitch pine. While the Safe was red hot, one of the walls tumbled in, and so injured the lock that it was necessary to break the door open. From this test, we feel no hesitancy in recommending "Rich's Patent Salamander Safe" as *entirely fire proof*.

GOREE & KING.

Marion, Ala., Sept. 15th, 1846.

Still other Tests in the Great Fire of July 19, 1845.

The undersigned purchased of A. S. Martin, No. 138½ Water street, one of Rich's Improved Patent Salamander Safes, which was in our store, No. 54 Exchange place. The store was entirely consumed in the great conflagration on the morning of the 19th inst. The safe was taken from the ruins 52 hours after, and on opening it, the books and papers were found entirely uninjured by fire, and only slightly wet—the leather on some of the books was parched by the extreme heat. RICHARDS & CRONKHITE.

Benton, Miss., December 27, 1845.

One of Rich's Improved Salamander Safes, which I purchased on the 2d of June last of A. S. Marvin, 138½ Water street, agent for the manufacturer, was exposed to the most intense heat during the late dreadful conflagration. The store which I occupied, No. 46 Broad street, was entirely consumed; the safe fell from the 2d story, about 15 feet, into the cellar, and remained there 14 hours, and when found, I am told, and from its appearance afterwards, should judge that it had been heated to a red heat. On opening it, the books and papers were found not to have been touched by fire. I deem this ordeal sufficient to confirm fully the reputation that Rich's safe has already obtained for preserving its contents against all hazards. (Signed.)

WM. BLOODGOOD.

New York, 21st July, 1845.

Reference made to upwards of nine hundred and fifty merchants, cashiers, brokers, and officers of courts and counties, who have Rich's Safe's in use.

The above safes are finished in the neatest manner, and can be made to order at short notice, of any size and pattern, and fitted to contain plate, jewelry, etc. Prices from \$50 to \$500 each. For sale by

A. S. MARVIN, General Agent,
138½ Water st., N. Y.

Also by Isaac Bridge 76 Magazine street, New Orleans.

Also by Lewis M Hatch, 120 Meeting street Charleston, S. C.

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

••• The letters in the figures refer to the article given in the Journal of June, 1844. ja45

PATENT HAMMERED RAILROAD, SHIP

and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eiting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

MACHINE WORKS OF ROGERS,

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

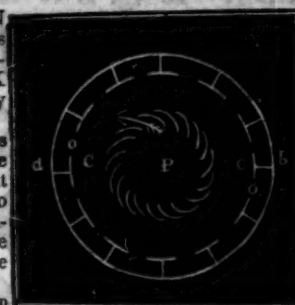
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, 445 Paterson, N. J., or 60 Wall street, N. York.

**PATENT RAILROAD, SHIP AND BOAT**

Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

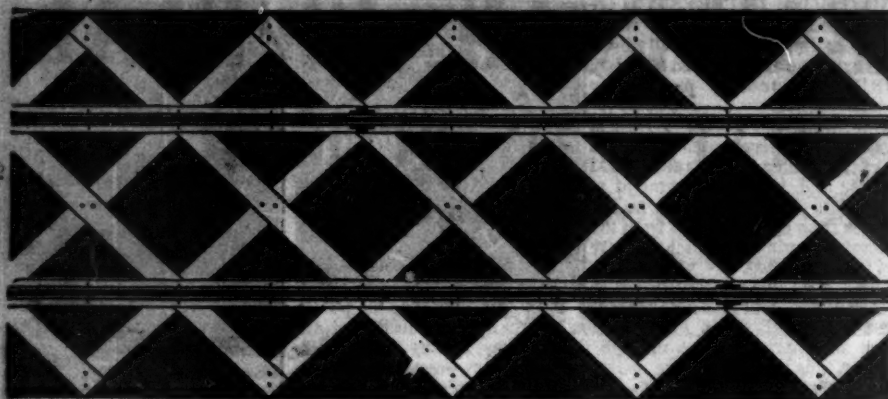
••• Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

DAVENPORT & BRIDGES CONTINUE

to Manufacture to Order, at their Works, in Cambridgeport, Mass., Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

THE HERRON RAILWAY TRACK,



As seen stripped of the top ballasting

A GOLD MEDAL AWARDED THE INVENTOR BY THE AMERICAN INSTITUTE.

THE UNDERSIGNED RESPECTFULLY invites the attention of Engineers, and Railroad Companies, to some highly important improvements he has recently made in the Herron system of Railway structure. These improvements enable him to effect a very large reduction in the quantity of Timber, and cost of construction, without impairing the strength of the Track; or its powers of resisting frost, while they secure additional features of excellence in the Drainage and facility of making Repairs.

The above cut represents the "Herron Track" as it is laid on the Philadelphia and Reading, and on the Baltimore and Susquehanna Railroads. The intersection of the sills of the trestles is 5 feet from centre to centre, while in the new construction they are only 2½ feet. This renders the string piece unnecessary, thus removing the only objectionable feature found in the Track.

The result of experience has proved that all Tracks constructed with longitudinal timbers, such as mud sills, and more especially, the continuous bearing string pieces retain the rain water that falls between the Rails, which, being thus confined, settles along those timbers, and accumulating in quantity flows rapidly along them on the descending grades, washing out the earth from under the timber, and frequently causing large breaches in the embankments of the road. Whereas all water intercepted by the oblique sills of the trestles, is discharged immediately into the side ditches.

In the 5 foot plan, the Track occupies a Road bed nearly 11 feet wide, while the new construction takes

but 8 feet; the timber being more concentrated under the Rails. A block of hard wood, about 2 feet long and 15 inches wide, is introduced into a square of the trestles for the purpose of giving an additional, and effectual support to the joints of the Rails, which rest upon it. Should these joint blocks become chafed and worn by the working, and imbedding of the chairs, as is now the case on all Railroads, they can be readily replaced without any derangement of the timbers less liable to wear.

The following is a general estimate of its cost near the seaboard. In the interior it will be considerably less.

ESTIMATE OF THE PROBABLE COST OF ONE MILE.
 4,224 Timbers, 11 ft. long, 3 x 6 inches =
 68,696 ft. b.m., at \$10 =\$686 96
 587 Oak joint blocks 2 ft. x 3 x 15 in. =
 4,403 ft. b.m., at \$13 = 57 24
 13,000 Spikes = 2,250 lbs. at 4½ cts 101 25
 Workmanship free of patent charge 600 00

Cost of one mile including the laying of the Rail\$1,445 45

He has made other important improvements, which will be shown in properly proportioned models, that give a much better idea of the great strength of the Track than a drawing will do.

Sales of the Patent right to all the distant States will be made on liberal terms.

JAMES HERRON.
 Civil Engineer and Patentee.
 No. 277 South Tenth St., Philadelphia. 33tf

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—

for sale or imported to order by the subscriber. These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
 75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.			HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.	Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	
	INCH.	LBS. OZ.	INCH.	LBS. OZ.		LBS.	INCH.	Tons.
11	4½	13 5	10	24 -		50	15-16	20
13	3½	8 3	8½	16 -		27	11-16	13½
14	3¼	6 11	7½	13 8		17	9-16	10½
15	2½	5 2	6½	9 4		13½	1-3	7½
16	2¼	4 3	6	8 8		10½	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

ENGINEERS' AND SURVEYERS' INSTRUMENTS MADE BY EDMUND DRAPER, Surviving partner of STANCLIFFE & DRAPER.



No 23 Pear street, 1y10 near Third, below Walnut, Philadelphia.

LAP—WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-4 TO 6 INCHES DIAMETER, and

ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,

Patentee.

1y25

28 Platt street, New York.

RAILROAD IRON.

MOUNT SAVAGE IRON WORKS

THIS Company are prepared to execute orders for RAILROAD IRON, of any pattern, and equal in point of quality to any other manufactured.

Address J. M. HOWE, Pres't. Mt. Savage Iron Works, Maryland.

Dec. 25, 1y*

RAILROAD IRON.—THE "MONTGOMERY" Iron Company, Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., Agents.

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77 Pine St., New York.

RAILWAY IRON.—DAVIS, BROOKS & Co., No. 68 Broad Street, have now in port on Ship-board, 200 Tons of the best English heavy H Rails, 60 lbs. to the lineal yard, which they offer for sale on favorable terms, also, about 6 to 700 Tons now on the way, to arrive shortly, of the same description of Rail.

Nov. 16, 1846.

46tf

ENGINEERS and MACHINISTS.

THOMAS PROSSER, 28 Platt St. N. Y. (See Adv.)

J. F. WINSLOW, Albany Iron and Nail Works Troy, N. Y. (See Adv.)

TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)

ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. (See Adv.)

S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)

NORRIS, BROTHERS, Philadelphia Pa. (See adv.)

FRENCH & BAIRD, Philadelphia. (See Adv.)

NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)

ROSS WINANS, Baltimore, Md.

CYRUS ALGER & Co., South Boston Iron Co.

SETH ADAMS, Engineer, South Boston.

STILLMAN, ALLEN & Co., N. Y.

JAS. P. ALLAIRE, N. Y.

PHENIX FOUNDRY, N. Y.

ANDREW MENEELY, West Troy.

JOHN F. STARR, Philadelphia, Pa.

MERRICK & TOWNE, do.

HINCKLEY & DRURY, Boston.

C. C. ALGER, Stockbridge Iron Works Stockbridge, Mass.